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# THE MOSELLE RIVER CROSSING OF THE 90th DIVISION

Dr. Hugh M. Cole

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*This article is excerpted in condensed form from a chapter in Dr. Cole's forthcoming book entitled The Lorraine Campaign, one of the volumes in the series, The U. S. Army in World War II, now being produced by the Historical Division, Special Staff, United States Army. Copyright 1950 by Orlando Ward; permission for reproduction may be obtained on request from the Chief, Historical Division, Special Staff, United States Army, Department of the Army, The Pentagon, Washington 25, D. C.—The Editor.*

THE XX Corps possessed a sizeable force on the eve of the November 1944 battle for Metz. In addition to three Infantry Divisions (5th, 90th, 95th), and one Armored Division (10th), General Walton H. Walker had the promise of "operational control" over the 83d Infantry Division, although there were numerous strings tied to its use. The Corps Artillery numbered 19 battalions, and the allotment of other Corps troops had also been increased. In sum, General Walker had at his disposal 30 battalions of infantry, nearly 500 tanks, and over 700 guns when the long-awaited offensive began.

The plans for the coming operation had been prepared during days of the most ex-

acting and detailed study; the air support plan, for example, contained a map showing each building in the city of Metz known to be occupied by Germans. On 3 November, XX Corps Headquarters issued Field Order No. 12 to the top commanders, outlining the broad scheme of maneuver to be followed. This final Field Order set the "primary mission of all troops" as "the destruction or capture of the Metz garrison, without the investiture or siege of the Metz Forts." Therefore, on D-day, a date still to be set, the plan called for the XX Corps to attack, encircle, and destroy the enemy in the Metz fortified area, reconnoiter to the Saar River, seize a bridgehead in the vicinity of Saarburg, and finally, on orders from the Third Army Headquarters, to resume the attack toward the northeast.

The initial envelopment of the Metz area was assigned to the 90th Division, forming the arm north of the city, and the 5th Division, encircling the city from the south. The 95th Division would contain the German salient west of the Metz. Then, as the concentric attack closed on Metz, the 95th Division would drive in the enemy salient and, it was planned, cross the Moselle River and capture the city proper. The 10th Armored Division was assigned the task of closing the pincers east of Metz, after crossing the Moselle

**During the drive on Metz in November 1944, the 90th Infantry Division attacked across and beyond the flood-swollen Moselle River in what General Patton said was "one of the epic river crossings of history"**

behind the 90th Division, by an advance parallel to and on the left of the 90th Division, while simultaneously pushing armored reconnaissance columns east toward the Saar River preliminary to making a crossing in the neighborhood of Merzig. Finally, the 3d Cavalry Group had the mission of following the 10th Armored Division across the River, swinging northeast into the triangle formed by the Moselle and the Saar Rivers, there probing toward Saarburg and screening the flank and rear of the forces engaged farther south and east.

On the night of 7 November, the 90th Division began to shuttle its troops into assembly areas on the west bank of the Moselle across from Koenigsmacker, 6 miles northeast of Thionville, where the Division would make its crossing. The 95th Division, on the right of the 90th, already was deployed on its designated line of departure and in position to lead off in the Corps attack. The 95th's original mission, that of making a demonstration on the west bank of the Moselle, was altered in the last hours before the jump-off. The 95th also would make a crossing, under orders to establish a bridgehead in the Uckange-Bertrange area south of Thionville. Only a limited force, however, was assigned for use east of the River, and General Walker still expected the 95th Division to coordinate its efforts on both sides of the Moselle so as to give the impression of a major attack, while, in fact, the 90th Division made the main effort farther north. The 5th Division was aligned facing the Sille River. The 10th Armored Division, intended for use with the 90th Division in the wide envelopment north of Metz, had been given a narrow front west of Metz during the first week of November. The final relief of the 10th Armored Division by the 95th Division was delayed until 8 November, in the hope of misleading the enemy, but by that time the main columns of the 10th Armored Division

already were on the road and enroute to the north.

When, on the night of 7 November, General Patton gave the order which would set the Third Army attack in motion, the XX Corps assault troops began the move into assembly positions, guns were displaced forward to support the advance, and bridging and smoke generator equipment was trucked and manhandled as close to the Moselle as camouflage precautions permitted. Early on the morning of 8 November, the dull sound of massed artillery fire to the south signalled the start of the XII Corps attack. All through the day, the XX Corps troops lay quietly in woods and marked bivouac areas. Then, as darkness came, the assault units took up attack positions, and the 95th Division moved forward the troops assigned to carry out the "demonstration" and initial crossing preliminary to the main Corps attack.

#### The 90th Division Crossing

When General Walker made his decision to put the 90th Infantry Division and 10th Armored Division into a wide envelopment north of Metz and Thionville, three points on the Moselle were taken under consideration as possible crossing sites: Rettel, Malling, and Cattenom. Brigadier General James A. Van Fleet, who had taken command of the 90th Infantry Division during October, ruled out the Rettel area because it lay under German observation from the heights to the northeast, and the 90th could spare neither the troops nor the time to seize or contain this ground.

The terrain south of Rettel was more favorable. Here the Moselle flowed through a broad flood plain with moderate banks. Beyond lay one-half to 1 mile of flat land, terminating in abrupt slopes leading onto long, wooded ridge lines which extended perpendicularly back from the river valley. On the right of the zone assigned to the 90th Division, the Cattenom crossing site lay under the guns of Fort





west of Boulay, the 90th Division would dominate the main roads leading east out of Metz, and the northern half of the XX Corps pincers grip around the Metz-Thionville position could be considered closed.

The distance to be covered by the 90th Division drive was some 16 miles. The road net in the Division zone east of the Moselle was hardly adequate, even in good weather. Furthermore, the main axial road, running southeast from Koenigsmacker beside a little stream known as the Canner, was unusable unless the Americans held the ridge line which it skirted. This ridge line, in the center of the zone of advance, was a serious obstacle, heavily forested, and broken across the grain at frequent intervals by streams and gullies. It was rendered more difficult as a military barrier by the Maginot Line, which had been built as a system facing Germany but whose individual works could be used to defend against an attack lengthwise along the ridge chain.

General Van Fleet planned to break through the German defenses overlooking the Moselle and quickly push down the ridge in a power drive, using two battalions in each of the assault regiments and attaching one battalion of Corps engineers in continuing support of each regiment, while other engineer formations were assigned to handle the river crossing. The 90th Reconnaissance Troop (reinforced) had the task of covering the right flank of the drive and establishing contact with the 95th Division force in the Uckange bridgehead. The 10th Armored Division would cross the Moselle behind the infantry and then come abreast of and protect the left flank of the 90th.

The success of the 90th Division attack would turn to a considerable degree on surprise and the prompt seizure of its initial objectives. During the week before the Third Army resumed the offensive, the Division was moved from the bridgehead south of Metz and dispatched, osten-

sibly for training, to the Audun-Aumetz area behind the Corps north flank, where both the 5th and 90th Divisions had conducted training during October. The final assembly area for the attack was the Forest de Cattenom. This forest offered ample cover and lay close to the Moselle. But it was on a forward slope under observation from the German side of the River and therefore could be entered only during hours of darkness.

In the last quiet days, the 3d Cavalry Group, screening this sector, extended its patrolling. Then, on two successive nights, the 90th Division artillery displaced to positions on the rear slopes behind the forest. The guns were followed on the night of 7-8 November by the infantry, moving by truck through the rain along slippery and tortuous roads. When 8 November dawned, the entire 90th Division, 6 battalions of supporting artillery, 2 battalions of tank destroyers, 1 battalion of tanks, 3 battalions of engineers, and 3 bridge trains, were in position inside the forest and behind the hills.

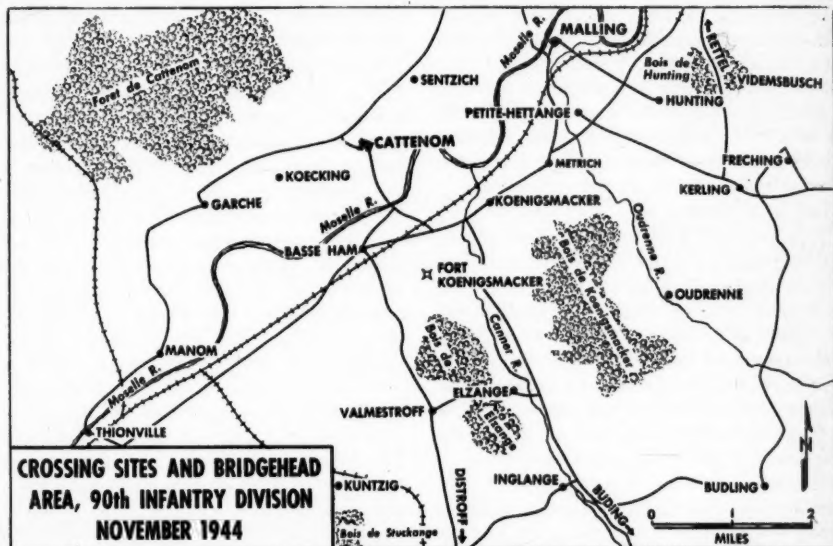
Each man who would take part in the assault now was briefed. The artillery registered with one gun in each battalion. Assignments already had been given in the assault boats, and even the reserve regiment and supply troops had been given assault boat training in case there should be difficulty in bridging the Moselle. Telephone wires, strung during the past several nights, were at the river bank, and officers of the 90th, using 3d Cavalry Group vehicles and insignia, had completed reconnaissance on the west bank.

During the early evening of 8 November, the 3d Cavalry Group stepped up its harassing fire, which had been a feature of previous nights, in order to mask activity on the American bank. Trucks moved bridging equipment down the roads leading to the demolished Moselle bridges. Tanks, assault guns, mortars, and machine guns were placed in position close to the water's

edge so as to give direct support to the assault troops.

A little before midnight, the assault battalions of the 358th and 359th began the carry to bring their boats to the River. Meanwhile, the 95th Division had begun the demonstration at the Uckange crossing site, and finally at 0330, the first attack waves of the 90th Division pushed out onto the rising waters. Only the left battalion of the two assault regiments reached the River in time to

The scattered outposts of the German 416th Infantry Division in this sector, caught completely off guard, offered little opposition to the initial assault waves and were cut down with grenades and Tommy guns. By 0500, the two leading battalions were on the east bank and 3 hours later troops of the 1st Battalion, 358th, and the 2d Battalion, 359th, were across in their respective regimental bridgeheads. These two right wing battalions were brought under a hot fire by the enemy,



shove off as planned, the 1st Battalion, 359th, making the crossing at the Malling site, and the 3d Battalion, 358th, leading off at the Cattenom crossing.

Although the flood waters of the Moselle increased the difficulties attendant on the crossing, they also acted to lessen the dangers on the enemy bank. The extensive mine plots prepared weeks before by the Germans were flooded over and the American assault craft passed them with impunity. The fox holes and rifle pits dug along the east bank were water-filled and untenanted.

who had recovered from their initial surprise, but losses were slight.

The main obstacle at this juncture was the raging Moselle, rising with extreme rapidity. The two right wing battalions had been forced to load into their assault boats in waist-deep water. Engineer boat crews had to be doubled in order to buck the current. Many boats on the eastern bank were lost when their crews allowed them to float away after debarking the infantry. The engineers, working to put in footbridges, found it impossible to anchor their cables securely. At the Cattenom site,

shell fire destroyed the first five truck loads of bridging apparatus. At Malling, a support raft was launched into the swirling waters and then capsized with its very first load. Meanwhile, the River continued to swell.

On the east bank, however, the first phase of the attack was executed swiftly and according to plan in the midst of a drizzling rain. In the 359th zone, the 1st Battalion was east of Malling when day broke and had cut the main highway to Thionville and Metz in two places. The reserve company entered Malling before the sleeping German garrison could man their positions and in a matter of minutes seized all of the town but two fortified houses, which fell later in the morning when a section of 57-mm AT guns was ferried across and laid on these buildings.

By noon, 133 prisoners had been rounded up in Malling. As the day progressed, the 1st Battalion pushed out to the east and north, driving isolated groups of Germans before it. The 2d Battalion extended the bridgehead area southward, taking Petite Hettange and Metrich with little trouble. At dark, the battalion was within 1,500 yards of Oudrenne but had been brought to a halt by large mine fields, which the German *LXXXII Corps* had planted to fill the gaps in its weak infantry line.

The reserve battalion, the 3d, followed hard in the wake of the assault battalions and marched almost without opposition to the crossroads village of Kerling, where it linked up with the 1st Battalion on the north and occupied a section of the ridge line which had been designated as the 359th Infantry objective. On this high ground north of Kerling, the Germans elected to make a stand, but the lead company of the 3d Battalion, attacking straight toward the flashing muzzles of a battery of four German AT guns, took the position.

Across the river from Cattenom in the zone of the 358th attack, the leading platoons of the 3d Battalion also moved speed-

ily forward, slipping past Fort Koenigsmacker before daylight and starting the advance toward the high ground between Kuntzig and Inglande, which marked the initial objective for the right wing of the 90th Division. The 1st Battalion, following the 3d, threw a company into Basse Ham before the enemy could react and dispatched companies A and B to make the *coup de main* at Fort Koenigsmacker on whose success the 358th maneuver turned. Before day broke, the two companies were disposed in the woods in front of the hill on which the Fort stood.

About 0715, the Americans attacked, rushing up the hill, cutting and smashing through the wire entanglements around the Fort. Apparently, the enemy were blissfully unaware that any Americans were in the vicinity. No alarm was given until A Company was already in sight of the unmanned, open trenches which lay inside the wire. Both companies were in the trenches before the Germans could loose more than a few rifle shots. At this point, the enemy mortar crews began to fire into the trenches, while observers in the concrete OP's on top of the Fort gave the range. The main casemates housed a battery of four 100-mm guns, but these could not be depressed to bear on the attackers and during much of the subsequent fighting continued to fire on the 3d Battalion as it worked its way forward in the draw to the north.

As at Fort Driant, the chief works lay below the surface, formed as a series of tunnels and underground rooms which were entered by way of steel and concrete OP's and sally ports at the ground level. The fort was garrisoned by a battalion of the *74th Regt, 19th VG Div*, which during the morning erupted from the tunnels in small-scale counterattacks which cost A Company some 35 casualties. In the midst of bursting mortar shells and bullet fire from the super-structures, a platoon of engineers from the 315th Engineers (C)

Battalion, and two assault teams from A Company, began the systematic reduction of the OP's and sally ports. Satchel charges, placed against steel doors, cleared a path to the stairways leading below. More charges demolished the stairs and cut off access to the surface. Ventilating ports were liberally doused with gasoline and then touched off by a thermite grenade or a string of threaded TNT blocks. On one occasion, a German was blown to the surface by the force of the explosion. All this quickly used up the stock of explosives, and as the day ended additional charges were flown in by an artillery liaison plane and dropped by parachute near the Fort.

By nightfall, the Americans were well established on the west side of Fort Koenigsmacker, but the fortress artillery and heavy machine guns still commanded the roads to the east and harassed the advance by the main body of the 3d Battalion which was moving through the draw north of the fort.

Meanwhile, the 2d Battalion, 358th, had crossed the River and assembled west of the town of Koenigsmacker. The reserve regiment, the 357th, crossed its 2d and 3d Battalions, using both the Malling and Cattenom sites in order to speed its deployment. The 3d Battalion, using the few assault boats salvaged from the earlier crossings, took 3 hours to negotiate the raging River, all the while under bitter fire from heavy caliber German mortars. A few power launches had been rushed by truck to aid the 90th Infantry Division, and these were used to carry the 2d Battalion.

By midnight, General Van Fleet had eight battalions of infantry on the enemy bank and a few light AT guns. Seven towns had been taken and at a few points the bridgehead had been extended about 2 miles to the east. But the bag of prisoners had been small during this first day of the attack—only about 200—and it was appar-

ent that the main enemy positions had yet to be encountered.

### The Continuation of the Attack

During 10 November, there was little activity in the zone of the 359th Infantry, on the north wing of the Division, but opposite the center and right of the 90th enemy resistance began to stiffen as the American attack hit against the Fort Koenigsmacker and Metrich positions held by the German 74th Regt.

The 357th Infantry had occupied the town of Koenigsmacker without a fight the night before, and now the 3d Battalion marched under cover of the morning fog to attack the Metrich works, about a mile southeast of Koenigsmacker, which constituted the initial objective for the Regiment. The leading company made the assault up the western slope of the heights on which the Metrich works were located, advancing with marching fire, killing some 30 Germans in the open trenches on the summit and driving the remaining enemy back into the concrete fortifications.

Meanwhile, the 2d Battalion moved one company from the town of Metrich in an attack against the eastern fortifications. Here the assault was repelled, after the company commander and executive officer were killed, by an intense cross fire from machine guns in pillboxes. When artillery fire failed to neutralize this position, the 2d Battalion switched around the heights to join the 3d Battalion, the two forming up to face down the Maginot Line ridge as the day ended.

On the right, the 358th Infantry also found the Germans reacting more stubbornly on 10 November. On top of Fort Koenigsmacker, Companies A and B, now reinforced by a third company of the 1st Battalion which had been detached earlier to cover the right flank of the Regiment, blasted away at the ferro-concrete works jutting about the surface. However, the enemy guns on the Fort were not silenced



and machine guns covering the roads below still were active. Masked by the early morning fog, two companies of the 3d Battalion succeeded in passing by the Fort and dug in on the Bois de Elzange ridge, the regimental objective, where they waited for the remainder of the Battalion to get through the gauntlet of fire laid down by Fort Koenigsmacker. The 2d Battalion tried to swing around south of the Fort and join the troops of the 3d Battalion on the ridge, but it was badly cut-up by flanking fire from the Fort and brought to a halt.

As the second day of the attack came to a close, the situation in the 90th Division bridgehead seemed most precarious. Unaware of the weakness of the German forces opposing the Division, General Van Fleet and his troops awaited a full-scale counterattack. No armor or TD support was across the River as yet, and covering fire depended on the batteries sited on the west bank, whose gunners, working in mud to their knees, fired around the clock.

The infantry was tired, soaked to the skin, and numbed with cold. Few blankets were to be had, and they were used for the wounded. Rations were slim, and ammunition was becoming scarce. Battle casualties had mounted, but fatigue and exposure threatened to take an even greater toll in the ranks. The supply routes back to the River were still under fire. Lacking their own vehicles, supply parties were forced to carry what they could in abandoned baby buggies and rickety farm wagons.

The Moselle continued to rise and at Cattenom was nearly a thousand yards wide. A few power launches and engineer rafts were able to battle their way across the raging River, but other craft were sunk by submerged fence posts or swept downstream. The 1st Battalion of the 359th, the last reserve on the west bank, loaded into motor boats and essayed a crossing. But all the boats except one were

forced to return to the point of embarkation.

Everything now turned on bridging the roaring current, for without an uninterrupted service of supply the 90th Division could not hope to drive far out of the bridgehead. The engineer ponton companies, working in the chill water and under constant shelling, did their best. But the work went slowly. Finally, about midnight, the bridge structure at the Mall-ing site was completed. Even so, it would be some hours before trucks, tanks, and TD's could start rolling across, for the causeway leading to the west end of the bridge now lay under 5 feet of water.

Despite the weather and the River, some re-supply reached the troops across the Moselle, and a few 57-mm AT guns were ferried over to reinforce the infantry. Early on the morning of 11 November, the three regiments swung into an advance, the tired and miserable "dough-feet" moving forward with speed and drive. In the center, the 2d and 3d Battalions of the 357th launched a pre-dawn attack, moving abreast in column of companies down the main Maginot ridge line, which here rose between two little streams, the Canner and the Oudrenne.

One company of the 3d Battalion was detached to clear the enemy from the remaining works of the Metrich position. Before daybreak, the company was in the pillboxes surrounding the last large casemate, but something had been learned from the Fort Driant experience, and no attempt was made to force a way through the tunnel entrances leading into the casemate. Instead, a small detachment was left behind to seal the German garrison in with bullet fire.

The main body of the 357th moved fast over the rugged, wooded ground, following the few narrow trails that passed for roads, or maneuvering cross-country to assault or by-pass the Maginot Line pillboxes which dotted the ridge. The pillboxes which



could be taken readily were blasted with demolition charges. At points where the Maginot works had wide fields of fire, or were stubbornly defended, the attackers circled wide and dropped off a few men to mop up the position.

By the evening of 11 November, the leading infantry of the 357th were in possession of the high ground northwest of Briestroff-la-Petite, forming a salient well in advance of the regiments on the flanks. But both battalions of the 357th found themselves deployed in very great depth, with only a few troops on the forward line and the remainder strung out behind to cover the exposed flanks or to contain the enemy pillboxes still active in the rear. Supply again was a problem. The 357th interdicted the valley roads below the ridge but could not use them itself, and through the night carrying parties stumbled across the transverse draws and gullies which chopped up the 4000-yard supply route.

On the north wing of the Division, the 359th briefly was thrown off stride by local counterattacks during the morning hours—probably made by troops of the reserve regiment of the German *19th VG Div.* Just before daylight, a sudden rain of artillery shells exploded among the 1st Battalion infantry who were holding the left flank of the Regiment. Behind this concentration, some 150 Germans and three assault guns advanced from the forest cover of the Videmsbusch toward the American lines. Battalion AT guns disabled two of the enemy guns at the first shock, but the 1st Battalion was being driven back when a platoon of only 10 men, from A Company charged in on the German flank and disorganized the attackers. By this time, the American artillery was on the target and the enemy had no stomach for continuing the attack. At 0900, the lost ground was retaken and the Battalion moved forward in its turn to the attack.

On the opposite flank, the 3d Battalion

had just occupied the high ground directly north of Kerling when German assault guns and infantry counterattacked. Bazookas, the only AT weapon at hand, failed to stop the assault guns which were leading the assault. As a last desperate measure, the American guns laying on indirect fire from across the River were told to continue their fire, even though the Germans were already in the 3d Battalion lines and casualties would be suffered by the Americans from their own shells. Two company commanders were killed as they rallied the troops to make a stand, but their example gave heart to their men and the Germans finally were repelled.

By mid-morning, the 359th attack was in full momentum all along its front. The ridges ahead were taken after a stiff fight, Kerling was outposted, but Oudrenne remained in German hands. The crossroads southeast of Rettel were seized and blocked, thus cutting the main highway entering the regimental zone from the north. The left flank of the Division was stabilized along a relatively defensible line.

Over on the south flank of the 90th Division, the 358th Infantry had what the Division *After Action Report* called "an exceptional day" on 11 November. Early in the morning, the elements of the 3d Battalion, which had filtered past the guns at Fort Koenigsmacker and taken up positions on the Bois De Elzange ridge, captured a three-man patrol coming along the back road which led to the Fort. The Germans told their captors that a relief party of about 145 men was following, enroute to reinforce the garrison. K Company and five machine guns were deployed in an ambush, and when the German column was only 50 yards away the order to fire was given. Over half of the enemy were killed. The rest fled.

Before daybreak, the 2d Battalion slipped past the machine guns and artillery on the south side of Fort Koenigsmacker, which had checked its advance the day be-

fore, and mounted the ridge on the right of the 3d Battalion. While the 1st Battalion, reinforced by G Company, continued the fight at the Fort, the balance of the Regiment drove ahead along the ridge under continuous and deadly mortar fire. In the late afternoon, the 3d Battalion attacked and took Hill 254, whose field fortifications overlooked the road between Valmestroff and Elzange, killing or capturing "its considerable garrison."

Back at Fort Koenigsmacker, G Company arrived at the rear of the Fort just as the German battalion there decided to call it quits and evacuate the position. Ringed in completely and trapped by fire on the tunnel exits to the east, the garrison commander put out the white flag. The Germans had lost at least 301 captured or killed in defending the Fort. The losses of the attacking Battalion numbered 111, killed, wounded, and missing.

At the end of 11 November, the 90th Division was in a far more advantageous situation than 24 hours earlier. The left flank, which was also that of the Corps and Army, was fairly secure. The first German MLR had been broken at Forts Metrich and Koenigsmacker, and it was cracking at spots along the ridge lines in the sectors of the 357th and 358th. Over 500 prisoners had been taken. The area of penetration had nearly doubled. Finally, the flooded Moselle had begun to recede.

Late in the day, tractors snaking trucks loaded with jeeps and supplies splashed through the flooded causeways and over the Mallong bridge. Ferries, now more manageable, crossed vehicles and AT guns. With the flood waters ebbing as rapidly as they had risen, it would be only a matter of hours until the 90th Division drive could be supported in proper fashion.

The enemy fight thus far had been carried by the German *416th Inf Div*, reinforced by infantry of the *19th VG Div*. But at long last the *KG* (task force) of the *25th Pz Gren Div*, ticketed earlier for use

in counterattack, had procured some gasoline and trucks. During the night of 11-12 November, this *KG* moved south to assembly areas opposite the 359th Infantry. Rundstedt's headquarters had ordered specifically that the counterthrust be made just south of Sierck, apparently with intent to roll up the 90th Division front by unhinging the American north flank. However, the subordinate headquarters, more familiar with the terrain, shifted the axis of the attack so as to avoid the deep ravine extending south from Sierck, and thus brought the assault up against the center and right of the 359th.

At 0300, on 12 November, the *25th Pz Gren KG*, composed of the *35th Regt* and reinforced by some 10 tanks and assault guns, struck the American line. The initial German assault drove the 3d Battalion outposts out of Kerling and forced the Battalion back to the high ground northwest of the village, where, after much confusion, it reformed on the right of the 1st Battalion. Shortly before 0600, the main attack developed, one enemy force thrusting along the Kerling—Petite-Hettange road, another striking at the junction of the 1st and 3d Battalions south of Hunting. The attack down the road was made in force, with the obvious intention of seizing Petite-Hettange and launching a blow from thence against the Mallong bridge site.

Led by assault guns and tanks, the German infantry marched in single file on both sides of the road—straight toward Petite-Hettange and the reserve positions manned by the 2d Battalion. The first encounter came when the enemy hit G Company and two platoons of the 2d Battalion Heavy Weapons Company deployed in the woods south of the road. A part of the German column turned aside to deal with this American opposition, a part continued on toward Petite-Hettange.

The mortar and machine gun crews supporting G Company especially distin-



On 10 November 1944, men of the 90th Infantry Division (above) were struggling in the flood-swollen Moselle to build a footbridge; the assault waves had made the initial crossing early the day before. Below, men of the 2d Bn, 358th Infantry, pause at Metzervisse on 17 November while artillery fires on nearby German positions.—US Army photos.



guished themselves in the action which followed. Sgt. Forrest E. Everhart, who had taken over the machine gun platoon when the platoon commander was killed, led his men with such bravery as to win the Congressional Medal of Honor. Private Earl Oliver stayed with his machine gun when the rest had been knocked out, and maintained a continuous fire until he was killed by a mortar shell. When day broke, 22 enemy dead were found in front of his position—some only 15 feet away. So close had the Germans pressed the assault that a sergeant in the mortar platoon had uncoupled the bipod of his mortar and used it at point-blank range. Although G Company was cut off, the attackers could not overrun its position; they finally were driven off when the American gunners west of the River laid down a box barrage.

Farther down the road toward Petite-Hettange, two American AT pieces were knocked out by the assault guns in the van of the German attack column. But a third AT gun continued to fire in the darkness up the Kerling road and succeeded in immobilizing the enemy point.

Meanwhile, the 2d Battalion commander gathered a mixed force of cooks, clerks, and an I and R Platoon at the crossroads southeast of Petite-Hettange. This scratch force momentarily checked the German column with fire from small arms and bazookas. By now, all of the 20 artillery battalions available to give support were busy shelling the road. Then, as a last crippling blow, two American TD's, which had been able to make their way across the Malling bridge, came rolling through the half-light up to the crossroads. The American infantry, artillery, and TD's had taken the heart out of the Germans and they began to fall back; only one enemy assault gun got away. Later, some 200 enemy bodies were counted alongside the cratered road.

The secondary attack against the south flank of the 1st Battalion, disposed in

the woods north of Hunting, was equally successful. Here the enemy infantry crept forward through the darkness until they were only 50 yards from the woods and then charged, firing and yelling. The American riflemen were driven back, but Pfc. Lloyd F. Harbaugh, of D Company, bravely manned his heavy machine gun and held back the attackers while his own infantry reorganized. When his ammunition gave out, Private Harbaugh was killed, but he had won time for his comrades, and the German attack finally was repelled with heavy loss to the enemy.

The main body of the enemy already was in retreat toward Kerling when Companies E and G launched a wild charge into the German flank, turning the withdrawal into a rout. In sum, the counterattack on which the German command had counted so heavily cost the enemy over 400 dead, about 150 prisoners, 4 tanks, and 5 assault guns. By late afternoon, the 359th had restored its lines and was ready to attack. The 2d Battalion led off along the road to Kerling, from which village the enemy attacks had been formed, but it was slowed down by mines and finally forced to halt short of the village as darkness fell.

Progress along the ridge in the center of the 90th Division zone was rapid on 12 November, but the stubborn enemy made the 357th Infantry pay heavily for its gains. The reserve battalion had been brought across the River, though with much difficulty, and with this reinforcement available to mop up the troublesome pillboxes in their rear, the 2d and 3d Battalions were free to continue the advance.

As the 3d Battalion emerged from the Bois de Koenigsmacker and into the draw below, it came under fire from a line of trenches on the forward slope of the next ridge southeast of Breistroff-la-Petite. For some hours, the Battalion maneuvered to close with the Germans in the trenches. Finally, Pfc. Foster J. Sayers, of L Company, wormed his way through the wire

strung along the glacis in front of the German trench line and leaping into the trench poured an enflading fire from his light machine gun down its length. Pvt. Sayers was killed. But his company poured through the breach he had made and the position was taken. The 2d Battalion had circled around the Germans on the slope and when the day ended held a spur overlooking the village of Inglinge. On the left, the 3d Battalion lay with its open flank refused, waiting for the situation in front of the 359th to clarify. This day of battle had seen the enemy forced to relinquish another segment of the long ridge chain. But the ranks of the two assault battalions were rapidly thinning.

The 358th Infantry, likewise, found the Germans on their front determined to stand and hold. The 1st Battalion was placed in reserve, covering the right flank of the Division and resting after the hard battle at Fort Koenigsmacker. The 2d and 3d Battalions launched a co-ordinated attack against Valmestroff and Elzange. These villages were taken after some bitter fighting during which the enemy not only stood his ground but counterattacked, firing bazookas into the trees to get tree-bursts over the Americans. Beyond Valmestroff, the 2d Battalion was checked by a cluster of field fortifications and pillboxes. Worse than the enemy fire above ground, however, was a new and dangerous German weapon, met here for the first time—the plastic and wooden box-mine—against which the conventional mine detector was useless.

Back at the River, prospects were a little brighter at the close of 12 November. A bridge was under construction at the Cattenom crossing. The Malling bridge was in the process of repair, after a lucky hit by German gunners. The Moselle had ebbed to a point where heavy rafting could be done, and by midnight two platoons of TD's, two platoons of tanks, and a number of jeeps fitted as litter carriers, had

been ferried across. But in the forward positions there was little to cheer the foot soldier. There still were no dry clothes or blankets in which he might warm himself during the cold November nights. Each company had gaping ranks; and in 6 of the 9 battalions, the rifle strength was now only half the original complement. Finally, the events of 12 November gave no indication that the German will to resist was weakening.

#### 90th Division Advance Continues

By 13 November, the advance of the 357th Infantry had carried the Regiment to the limit of its artillery support. The Regiment paused and cleared out the remaining knots of Germans in its rear with explosive charges and flame throwers, while the regiments on either flank moved up abreast. The 359th Infantry reoccupied Kerling without a fight. But when the 2d Battalion attacked, late in the afternoon, to effect a juncture with the 357th outposts near Oudrenne, the leading company hit squarely into a large mine field. Three tanks, leading the advance, were destroyed in quick succession. After futile attempts to find the limits of the mined area, the infantry were forced to attack straight through the mines, taking their losses. Later, over 12,000 plastic and wooden box-mines were taken from this one mine field. The 358th Infantry also was slowed down by mines, as it continued along the ridge chain, but the enemy infantry gave little opposition and apparently was retiring to a new line of defense.

The bridge at the Cattenom site was finally completed during the morning by engineer parties building from both sides of the River under a very elaborate smoke screen, laid down by smoke generators, 4.2 chemical mortars, and two battalions of field guns, which did not break once during the entire day. Just as the last section of the 645 foot steel treadway was moved into place, a Dukw struck a



mine near the far exit. Then it was found that the eastern end of the bridge lay in the midst of a mine field which has been covered by the flood waters, now receding. Five hours were lost while the engineers went about the hazardous task of probing under water for the mines. But at 1645, the bridge was ready.

One gun from each light artillery battalion was rushed across the bridge to register at new ranges before darkness set in. The 90th Reconnaissance Troop and light tanks also pushed into the unending stream of bridge traffic and swung south to establish contact with the 95th Division bridgehead at Uckange. By dawn of 14 November, all regimental transport, three battalions of 105-mm howitzers, a TD battalion, and the vehicles of the Division's engineer battalion were across the River.

Using this single bridge, for the Mall- ing bridge still was damaged, the 90th Division had crossed all of its organic units and attachments, plus four battalions of supporting artillery, by 1500 that same afternoon. For the first time in 6 days and nights, the troops in the bridgehead had overcoats, blankets, and dry socks.

During the day, the 359th occupied Oudrenne and joined its right flank firmly to the line held by the 357th. The 358th continued its push to come up abreast of the center regiment and placed the 3d Battalion astride the Inglande-Distroff road. Then, when the German garrisons in the two villages were denied mutual support, the attack forked out to take them.

The 2d Battalion captured Distroff "in particularly bitter fighting" and rescued a 24-man patrol belonging to the 3d Battalion, which had entered the village but had been driven to seek shelter in the cellars when the streets were found alive with the enemy. Around Inglande, the German artillery kept up a heavy shelling on the 3d Battalion, and patrols sent out

toward the town reported that it was strongly defended. The Battalion commander therefore decided to withhold his assault until there was sufficient artillery and tank support forward to launch a co-ordinated attack. This support was on its way forward, and not only the leading formations of the 357th but the rest of the Division as well would shortly be in a position to resume a co-ordinated advance.

### The Attack on 15 November

When the 10th Armored Division passed through the lines of the 359th Infantry on 15 November, and struck to the east, the 90th Division bridgehead had attained a width of 11 miles and a depth of 7. Although the German *416th Inf Div* and the *19 VG Div* were giving way, and the roads behind the German lines were filled with vehicles heading east, there was still a reserve force capable of making a serious counterattack. The *KG* of the *25th Pz Gren Div* had been reinforced by the addition of a battalion from the *74th Regt*, after the reverse suffered at the hands of the 359th Infantry in the fight west of Kerling. Now the German *First Army* commander was given leave to use it in another riposte, this time at the southern flank of the 90th Division.

The German records do not reveal the reasoning behind the decision to re-commit this *KG*. Probably the enemy commander merely hoped to delay the American advance and cover the withdrawal of his own troops. In any event, the *KG* of the *25th Pz Gren Div*, composed at this time of three battalions of infantry, field artillery, some tanks, and assault guns, was sent around the open right flank of the 358th Infantry to an assembly area in the Bois de Stuckange.

At daybreak on 15 November, the *KG* struck east at Distroff in what the 90th Division *After Action Report* called "the most violent counterblow of the campaign." Distroff was held by the 2d Battalion, 358th



Infantry, which here was in a position blocking the main road net leading into the rear of the regimental sector. In addition, A Company, 712th Tank Battalion, was bivouaced in and around the village and a platoon from the 773d Tank Destroyer Battalion was in a position back of Distroff. A little before 0700, enemy shells suddenly burst in the village. This preparatory fire continued for about 20 minutes.

Then the Germans were seen coming along the road from Metzervisse, a few tanks and assault guns leading the attack, and the infantry marching or riding in armored carriers. It would seem that two German battalions were involved in this assault, one hooking into Distroff from the south and one circling to the east of the village. A third battalion, apparently marching to envelop the American position from the north, was checked by the fire of the 90th Division artillery and took no part in the main fight.

Close to Distroff, the German tanks and assault guns were hit by fire from the village. Those whose crews could get them out of the danger zone did so, leaving the grenadiers to close with the Americans. The first assault waves were repelled, but the German infantry closed their ranks and returned doggedly to the attack, finally breaching the 2d Battalion OPL and sweeping into the streets of Distroff. The American tanks, TD's, and infantry, under the command of the Executive Officer of the 2d Battalion, held grimly to the village.

As the Germans spread out, the fight broke into a series of isolated actions to hold a house or a shop, in which the Americans fought from doors, windows, and roof-tops with Colts, rifles, and bazookas. About this time, the 358th regimental commander sent a reserve platoon of TD's to reinforce the 2d Battalion. The TD's succeeded in getting into the north edge of Distroff, under cover of a smoke screen, and there took a hand in the battle. The regimental commander was loath to commit

the 1st Battalion—his only infantry reserve—for heavy German artillery fire directed at the 3d Battalion, facing Inglange, seemed to threaten an attack against the left flank of the Regiment. He did order the reserve battalion up to the Inglange-Distroff road, but by the time it reached the highway the 2d Battalion already had broken the back of the German attack.

After 4 hours of fighting, the enemy broke off the engagement and retired along the road to Metzervisse, taking several prisoners with them. The charred hulks of 4 tanks, 4 assault guns, and 16 halftracks were counted in and around Distroff. The German dead and wounded numbered over 150. American losses are not recorded, but they were substantially less than those of the attackers.

The Distroff counterattack was the last to hit the 90th Division during the envelopment of Metz, but organized and stubborn German resistance continued a little while longer. During 15 November, the 357th Infantry continued its up-hill and down-dale advance with an attack to take the ridge between Budling and Buding. About 0645, the 2d and 3d Battalions moved out of the woods astride the ridge where the Regiment had halted 3 days earlier. As the troops came down the forward slopes overlooking the valley road toward Budling, a terrific shell fire began, estimated as one round per second.

At first, the German guns could not be discovered. Finally, the American forward observers ascertained that the fire was coming from Maginot Line casemates on top of the Hackenberg, a promontory jutting out from the east end of the enemy ridge, from which belt-fed French guns enfiladed the whole valley and the forward lines of the 357th. Since the 3d Battalion, nearest the Hackenberg, could not advance in the face of this quick fire without unnecessarily high losses, the 1st Battalion was brought up from reserve to aid the

2d Battalion in making an envelopment of the enemy's left flank.

At the same time, American guns began hammering away at the Hackenberg works with counterbattery fire. A platoon of TD's opened fire at 2,750 yards and immediately scored direct hits on the German casemates—but with no discernible results. Then the heavy pieces took a hand in the action, but neither the 8-inch guns nor the 240-mm howitzers were able to still the enemy artillery.

The day ended with the 357th still held in check. But during the night, some self-propelled 155-mm guns were moved to within 2,000 yards of the Hackenberg and on 16 November they neutralized the German guns, allowing the two right-wing battalions to cross the valley and take the steep, wooded ridge beyond. The next day, the attack continued on its up and down course, but it was checked in the second valley ahead when the 2d Battalion unexpectedly ran into a determined enemy detachment barricaded in the village of Klang.

In the meantime, the 3d Battalion had occupied the Hackenberg, only to find that the American self-propelled guns had given the quietus to the garrison, whose bodies lay heaped around the demolished quick-firers. Hastening on to pass between the two leading battalions, the 3d Battalion arrived just in time to take part in a "squeeze-play" at Klang. The appearance of some American tanks rolling down the road towards Klang had discouraged the enemy in the town and precipitated a general exodus. But the Germans had delayed their retreat just long enough to permit the 2d and 3d Battalions to close a pincers beyond Klang. The regimental dispatches on the evening of 17 November reported laconically that the "slaughter was appalling."

While the 357th was busy cracking the last vestiges of resistance in front of

the Division left wing (the 359th was now in reserve), the 358th wedged its way forward on the right. After waiting for 24 hours outside of Inglang, in order for the situation at Distroff to emerge clearly from the smoke of battle, the 3d Battalion struck down into Inglang on 16 November in a co-ordinated assault with tanks and TD's. Most of the defenders had evacuated the spot during the earlier lull and only 30 prisoners and two AT guns were taken here.

The 2d Battalion followed up its hard won victory at Distroff, and late in the afternoon it took Metzervisse, after the village had been subjected to a heavy shelling by Division and Corps artillery, and a flanking attack had turned the German position along the railroad embankment on the north. On 17 November, the 2d Battalion continued on to Metzeresche (not to be confused with Metzervisse), with tanks leading. By now, the enemy was everywhere withdrawing. Metzeresche was quickly over-run and the 1st Battalion leap-frogged ahead to a position astride the Dalstein-Metz road.

The events of 17 November, both north and south of Metz, worried the German *Army Group G* Commander considerably. He saw that unless the north flank of the *First Army* was withdrawn to the east, and quickly, a gaping hole would be torn in the German front which might never be mended. At 1930, the orders were given for the *First Army* to pull back its right and center, the *416th Inf Div* and *19th VG Div* withdrawing, in this move, to the Maginot Line sector, Borg-Launstroff-Bouzonville, while the *XIII SS Corps* redressed its right wing to link up with the left of the *LXXXII Corps*. During the night of 17 November, the German guns commenced barrage fire and the enemy infantry abandoned their positions in front of the 90th Division and the southern column of the 10th Armored Division.

On 18 and 19 November, the American

forces pursued the retreating German columns. General Van Fleet threw the 359th Infantry into the chase and relieved the 358th, which was badly in need of a rest, as soon as it reached the town of Luttlange. Specific objectives were no longer assigned. The general mission, however, remained the same: to close the gap east of Metz and join hands with the 5th Infantry Division advancing from the south. The infantry moved forward in trucks when they could, and marched when trucks were not at hand or when blown bridges and craters cut the roads. Often the speed of the advance overran the rear-guard German demolition details before they could blow the bridges.

At the end of the first day of this pursuit, the 359th Infantry had troops across the Nied at Conde-Northen, 12 miles east of Metz, and the 90th Reconnaissance Troop held Avancy, blocking one of the main escape routes from Metz. Through the night, the Americans fired on the exit roads with every weapon they could bring to bear. The cavalry alone counted 30 enemy vehicles destroyed and took over 500 prisoners.

On 19 November, the 359th cut still another of the Metz exit roads at Les Etangs, after an advance in which planes of the XIX TAC worked directly with the infantry, swooping down as close as 100 yards in front of the American patrols to strafe the fleeing enemy. For most of the enemy who were trying to find a way out of the Metz pocket, all hope of continuing the battle was gone; pounded by planes and guns, they surrendered willingly.

About 1030, the 90th Reconnaissance

Troop met the 735th Tank Battalion, supporting the 5th Infantry Division, and the envelopment of Metz had been successfully completed. The 357th Infantry, on the division left wing, wheeled to face east and was moving to launch an assault across the Nied River toward Boulay when General Van Fleet received orders from the XX Corps Headquarter to hold the 90th Division in place, preparatory to a general regrouping within the Corps for a full dress attack toward the Saar River.

The 11-day operation by the 90th Infantry Division shows how far it had come since the mediocre performance in Normandy. Vastly improved as a fighting unit, the Division now was considered to be one of the best in the Third Army. While it is true that the enemy forces which opposed the 90th often were poor, it also must be remembered that elements of the Division had met and defeated troops from one of the crack German divisions on the Western Front, i.e., the 25 *Pz Gren Div*, and had fought through terrain of considerable natural difficulty, made worse by the autumn rains.

The initial seizure of a bridgehead over the Moselle in particular had been ably executed and so impressed General Patton that he termed it "one of the epic river crossings of history." The demonstrable losses inflicted on the enemy during this operation totalled 2,100 prisoners, some 40 tanks and assault guns, 75 artillery pieces, over 200 vehicles, and an unknown but high number of dead and wounded. However, the 90th Division itself had lost some 2,300 officers and men in the first 7 days which marked the hardest fighting.

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The principles on which infantry tactics must be based are offensive action, surprise, and mobility. These are the test of any infantry plan. If the plan is to work, they must all be present.

*Major General C. H. Boucher, Great Britain*

# The "Stew in Their Own Juice" Theory

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*The ideas expressed in the following article are the author's (except where specifically quoted) and do not necessarily reflect the doctrine of the Department of the Army or the Command and General Staff College.—The Editor.*

**T**O "LET them stew in their own juice" has achieved a certain popularity as a prescription for an enemy nation defeated in war. It is a disarmingly simple solution for the problems which invariably arise in war's aftermath. But is it a logical prescription? It implies that the victor nations can disentangle themselves from the intimate embrace of war the moment the last bomb is dropped and the last shot is fired. It assumes that the fate of the loser is of no consequence, that the enemy people must reap the harvest of defeat, that the vanquished must "stew in their own juice."

The theory and the thinking behind this concept are not given consideration and treatment in most publications and papers dealing with military subjects. In fact, detailed consideration of this theory is so rare as to imply that the subject is not important enough to be worth mentioning; or, by default, the conclusion is to be drawn that the theory is to be blindly accepted.

What is to be done with a defeated enemy at the conclusion of a war? The "stew in their own juice" theory maintains that, after an enemy has been defeated to

the extent that he is no longer capable of armed resistance, he is to be forthwith forgotten and allowed to lick his wounds and mend his ways in his own fashion. A part of this theory requires that he and his factories, his cities, and his morale are to be destroyed to such an extent that he will be unable to constitute a threat to anyone—ever; or at least until some time too far in the dim and distant future for anyone to consider seriously. In short, once enough destruction has been visited upon an enemy to encompass his defeat, he can be safely left alone to "stew in his own juice."

The idea of inflicting such utter defeat upon an enemy that he can never again develop the strength necessary to fight is not new. Countless tribes have been completely wiped out. History is replete with the destruction of cities, the scattering of peoples, and the dismemberment of countries. But history is also replete with wars which took place between these same people or other people who took their places and with wars which occurred between the same countries or others of which the dismembered countries had become a part.

In his book, *The Mongol Empire*, Michael Prawdin writes of Tuli, the youngest son of Genghis Khan: "He never had to leave garrisons behind in occupation, for where he passed there was nothing left but uninhabited ruins. Of towns which had contained 70,000 to 1,000,000 inhabitants, nothing remained alive, 'neither a

cat nor a dog." But is it not a fact that the lands where these towns stood were reinhabited? And have not wars been fought by the peoples who came to live there?

A revival of the idea of utter defeat, which developed in World War II, is very familiar to most students of war and of international relations. This revival apparently originated with the so-called Morgenthau Plan, which foresaw an utterly defeated Germany. Germany was to have not only its armed forces and its armament factories destroyed; it was also to have the greater part of its industry destroyed. Destruction was to be so general that only those very minimum, basic industries necessary to provide for an agricultural nation and an agrarian economy were to remain.

Actually, the Morgenthau Plan was not

enjoyment of war itself. If the reason for war is the establishment of a more perfect peace, then the conduct of war, and the preparation for it, must be conditioned by the results that are expected to be accomplished. It then behooves the military student to project his study and his thinking beyond the mere defeat of the armed forces of the enemy and to consider the actions to be undertaken, and the results to be attained, after the fighting has ceased. It is for this purpose that this article proposes to examine briefly the idea of leaving a defeated enemy to "stew in his own juice."

Much of our literature deals with the problem of defeating the armed forces of a possible enemy, but little has been written on what is to be done with him after he is defeated. However, among military and among non-military persons, the

***What is to be done with a defeated enemy at the conclusion of a war?  
The author argues that it is better to convert an enemy to our own way  
of thinking than to let him "stew in his own juice" in utter defeat***

officially adopted by the Allies, but some of its thinking remained in the "unconditional surrender" terms that were imposed. As a partial result of this thinking, the victors are now faced with the necessity and expense of getting Germany back on her feet sufficiently to prevent her from becoming the breeding ground for another war.

Is Germany not now a diplomatic battleground? Are not the Soviets and the Western nations competing with each other to keep Germany from becoming aligned with the other side, even if neither side is yet willing to see Germany rearm as an independent nation?

It seems to be universally accepted by Americans that wars are fought with the ultimate goal of establishing a more perfect peace. Certainly, in the modern world, they are not fought for the sheer

idea persists that utter defeat of the enemy carries with it the solution to the problems which instigated the war.

This idea seems to have gained new popularity since the development of the atomic bomb. It is most often expressed, or implied, by those air power enthusiasts who speak in terms of such destruction of an enemy's war potential that he is no longer able to maintain armed forces or to offer resistance by force. Some of them speak in terms of destroying the enemy will to resist. Many include the nullification of the control structure of the enemy government, by the destruction of his political leaders, his government centers, and the communication systems by which control is exercised. They include with this, as a minimum, the destruction of those industries which produce the essential goods of war.



More moderate enthusiasts may confine themselves to the opinion that the destruction of certain key industries will be sufficient to accomplish the purpose. But almost without exception, all of them speak of the necessity of destruction continued to the point where it may be expressed in the words of Colonel Cecil E. Combs in the *Air University Quarterly Review*: "The validity of the concept of the strategic air offensive depends upon the assumption that the enemy's will to resist can be destroyed by demolishing economic, industrial, and other resources upon which war potential depends."

Or, again, it can be derived from the stronger words of Colonel Dale O. Smith, who writes in the same magazine: "Bombardment of the enemy heartland, when done in force, not only affects a siege, but accelerates its crisis. Transportation is not only disrupted to the point where even food cannot be distributed, but all elements of the national economy are severely damaged in a short time. There is no waiting for the economy to run down to where national reserves are consumed, as in surface siege. There need be no fear of an enemy sustaining himself over a protracted period. Air bombardment destroys not only much of the reserves, such as oil, steel, and manufactured goods, but the means to use the reserves, such as transportation, communications, and power. It does more than simply destroy war potential; it *kills the nation*" (italics supplied).

It is not the purpose of this article to argue the merits and the effectiveness of strategic bombing or the capability of any other weapon to wreak destruction upon an enemy, be it a land, sea, or air weapon. Its purpose is merely to point out the short-sightedness of the student and thinker who does not project his mind further than the ending of an enemy's "will to resist."

It may be argued in this connection that this is as far as military thinking should

go, and that any planning beyond this point is the job of the statesman. Such an argument is fallacious. It ignores the fact that military activities extend beyond the acceptance of surrender terms by a defeated nation, and beyond the physical occupation of enemy territory in the event that his military forces are completely destroyed and a government that can control his area no longer exists. These military activities which extend beyond the surrender must go hand in glove with the political, sociological, and economic activities designed to ensure that the conquered country follows the ways of peace rather than becoming the breeding ground for future war.

There is also the postwar problem of just what sort of military posture and degree of preparedness a victorious nation should maintain. Unless one nation should emerge so powerful that no others could compete, some degree of military strength would have to be kept in being. And even in such an unlikely event as the domination of the world by one nation, such a nation, or a group of nations, would find it essential to have police forces so strong as to be the equivalent of military forces. How can the military student avoid combining his thinking and his plans with the thoughts and plans of the statesman?

If the destruction of the enemy's will to resist is the only end for which military power is designed, then the following statement from a United States Air Force Extension Course on Plans and Special Operations is valid: "The ultimate aim or the ultimate objective of military power becomes the capitulation of the enemy nation, the forcing of our will upon the enemy nation to preserve our peace and prosperity." If, however, the ultimate American objective of the application of military power in war is the achievement of a more perfect peace, the quoted aim is inadequate. It may be fairly said that the objective of forcing the Allied will upon





Destruction caused by modern war creates conditions which gravely influence the subsequent peace. Above, a view of Nagasaki, Japan, after the atom bomb, showing what was a densely built-up industrial and residential area. Below, civilians of Plauen, Germany, salvaging articles from the wreckage of their bombed homes and shops.—US Army photos.



Germany and Japan was completely accomplished at the conclusion of World War II. Yet these results do not provide grounds for optimism over the future preservation of peace and prosperity.

In large measure, the instability of peace today can be laid to the enormous destruction of World War II, whether caused by land, sea, air, political, or economic action. Destruction and disruption in Europe and the Far East have resulted in turmoil and armed conflict in both areas. So it appears that no matter whether destruction is as complete as that practiced by the Mongols or only in large part complete as in World War II, the end result has hardly been the securing of a more perfect and lasting peace.

Philosophically, it may be argued that man must eventually realize that, in the modern world, war is too costly for both sides of a dispute, and that man must find other means of settling differences between nations. Such an outlook is doubtless true and unquestionably is eminently desirable. Until a major change takes place in human nature, however, the military student and the statesman had best deal with realities as they exist, and think and plan accordingly. The history of mankind definitely indicates that the discontent of peoples is one of the primary causes of war. Can it be expected that a people whose centers of culture, livelihood, families, and sources of supply for the amenities of life have been destroyed will be content to live in peace for long?

In examining the subject of war by modern means and its effect on modern civilization, it is true that a nation's ability to continue to make war can be lessened by the destruction of certain key features of its strength. This was amply proved in the last war. If a nation's sources of gasoline are put out of commission, its planes and tanks must eventually be halted. If its electric power sources are destroyed, many industries will have to stop

production. Should its transportation be demolished, its war effort will be materially closed.

Other things, as well—such as factories, population, control centers, and telecommunications—are targets whose destruction will handicap a nation's ability to make war. But destruction of a nation's basic essentials for making modern war likewise destroys the essentials for that nation's people to live. Gasoline supplies the tractors that raise food and the trucks that haul it. Workmen and factories build the tractors and trucks. Transportation systems and telecommunications are essential for distribution and some form of governmental control is necessary if chaos is to be avoided.

In studying the problem of possible war, the military and the diplomatic student must determine how to win the war at the least cost, yet with the most beneficial and lasting results. The student must weigh carefully not only what is required to bring the enemy to the point of taking only the actions desired by his own nation and its allies, but he must measure the results of these actions in relation to the rest of the world. And the latter consideration must be projected as far into the future as possible. In other words, the student must visualize just what kind of world relationship the war is designed to establish and appraise the effectiveness of these relationships in maintaining peace for the longest possible time. Only in the light of the results to be achieved can the conduct of a war be properly planned.

If it be true that the idea of "killing the enemy nation" and then leaving that nation "to stew in its own juice" is inadequate to a more perfect and lasting peace, a question immediately arises. What type of war can be fought and what type of subsequent peace can be established to ensure the desired results?

Briefly, the following modes of terminating war are possible.

First: the war of "extermination." Such a war would visualize not only the destruction of an enemy's will to resist, the destruction of his sources of military power, and the destruction of its armed forces, but the actual elimination of all his people from the world. It would visualize the type of war fought by the Mongols in the thirteenth century. Whether such a war is morally justifiable is beyond the scope of this article; it seems safe to assure that world opinion in general would react with horror to such a war. Were such a war to be fought today, the result would be the depopulation of vast areas of the world.

With the present division of the world between two ideologically opposed forces, the depopulation of the area of one of the principal powers would soon result in the influx into that area of peoples from overpopulated areas elsewhere. These peoples would probably derive from different cultures and ideologies with the inevitable result of discontent within the area originally depopulated. Judged by the results of extermination as practiced by Hitler, more than a reasonable doubt arises as to the practical success to be obtained by this means. It is extremely difficult to eliminate some millions of people. That any modern thinker would seriously contemplate a war of extermination seems very doubtful.

Second: the war of "unconditional surrender," or the war of total defeat of the enemy's military forces. This mode of war visualizes the defeated enemy as being forced to accept whatever terms the victor desires to impose. With modern weapons, such a war is bound to result in tremendous destruction. It is most likely to result also in the complete disintegration of the enemy governmental control. This, in turn, faces the victor with the necessity of providing interim control and

of reestablishing some form of government which can function along lines acceptable to the victor. This is an expensive, difficult, and time-consuming process as shown by the results of World War II. Such results may be the best obtainable if a determined enemy insists upon a last-ditch fight. As in the case of Germany, however, a last-ditch fight is to be expected if, during the war, the opponent knows that he has no other alternative.

Third: the war of "conditional surrender." This visualizes that an opponent can avoid complete defeat and large-scale destruction by accepting the terms offered by his adversary and thereby bringing the war to a close. Turning to World War I, this type of surrender by Germany did not result in a lasting peace, but it did serve to bring the War to a close with less loss of life and goods than would have been the case had the War continued to total defeat. By hindsight, it would appear that the terms and agreements leading up to and resulting from this surrender were faulty. These terms and agreements might have had greater success in sustaining a more permanent peace had they been drawn with more wisdom and foresight.

Fourth: another possible method of bringing war to a close is by "negotiated compromise." President Wilson disclosed this concept in a speech to the United States Senate in January 1917. He hoped that World War I could be terminated by agreement between the belligerents, that it would end in "peace without victory," and that there would be no victor and no vanquished forced to accept humiliation. He hoped an enduring peace could be brought about which would recognize the principles of equality between nations and common participation in common benefits. It is difficult to visualize a war between nations of diametrically opposed ideologies ending in such a manner. Yet what hope there is in the ability of the United Na-

tions to preserve peace is based largely on such ideals. Such an ending to war is not beyond the realm of possibility.

Modern advances in war technologies are influencing the thinking of many people on the subject of waging war. The idea has taken shape that at some future time war can be fought with very long range, very destructive missiles; that it can be fought over tremendous distances without the manpower of the belligerents coming to grips with each other. Such a war, if and when possible, would not alter the problem of how best to terminate the war. War would still have to end by one of the four means outlined above. It would have to result in "extermination," "unconditional surrender," "conditional surrender," or "negotiated compromise."

What sort of war shall be waged to produce the desired result? Is there a ready solution to this problem? Can the thinker confronted with such a problem give up seeking a solution because it is difficult to find?

If history can be a guide, the solution seems to lie somewhere in the area of the "conditional surrender" type of war. Longer periods of peace have in general followed those wars which were terminated by the most reasonable and fair surrender terms. To arrive at such terms requires a high order of enlightened statesmanship on the part of victor and vanquished. Such terms must take into account many factors affecting the future relationships of peoples and areas on a world-wide basis. It is not sufficient that the peoples of the victor nations shall have the opportunity of living free from threat and from discontent. The peoples of the vanquished and the neutral nations must also be considered. The ethnological, the sociologi-

cal, the economic, the political, and the historical factors affecting these peoples must be taken under the most careful study.

Peace terms must be designed to meet the requirements these factors will engender.

The part the military thinker must play in this connection and in conjunction with the statesman is to adapt his military thought and plans to the over-all results to be achieved. He must design the contemplated military actions of the war so that these actions will lead to the desired peace situation at the conclusion of the war. Important military decisions must be made in the light of the ultimate end to be attained as well as the immediate military objectives sought. If the peace succeeding the war is to be more perfect and lasting, the way to achieve this result lies in creating the minimum destruction of non-military and partly military facilities. Creating maximum destruction is not the most effective means of achieving the most effective peace. Nor will a destroyed enemy "stewing in his own juice" contribute to a lasting peace. On the contrary, the stewing juice is more likely to breed future war.

It may well be that the military thinker will want to restate the ultimate objective of military power. Instead of viewing the objective as "the capitulation of the enemy nation" and "the forcing of our will upon the enemy nation," the military thinker may prefer to consider that the ultimate objective of military power is to cause an actual or potential enemy to so realign its actions as to bring them into consonance with his own country's national objective.

# BUILDING AND TRAINING A COMBAT DIVISION

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**T**HE leadership problems of the division commander during activation and training of a new division are natural products of rapid expansion from a relatively small peacetime establishment to an army of millions of men.

The basic policy of the United States has always been to maintain a relatively small Regular Army, together with a large Reserve in varying degrees of readiness. Thus, problems inherent to rapid expansion in a future war will parallel closely those met and solved successfully in the past.

In general, the commander of a newly activated division can expect to meet problems caused by shortages of men, weapons, and facilities. This condition will be aggravated further by the press of time and heavy personnel withdrawals to form other new divisions. These same problems were encountered and solved successfully in World War II. This article presents some of these problems, together with proven techniques of solution, thereby hoping to assist commanders in the future.

## Activation and Training

The leadership objective of the division commander during activation and training

was to develop (within the allotted time) a skilled, coordinated, integrated, fighting team capable of the willing execution of any assigned combat mission.

Usually, a new division was constructed around a cadre of officers and men drawn from another division. The parent division may or may not have selected the cadre, but was responsible for its training. The division commander and his two principal assistants were selected by the Army Field Forces. The principal officers of the service components were designated as recommended by respective service chiefs. The remainder of the officer complement was provided from other divisions in being and from officer-training establishments. The commander, his principal assistants, and staff were brought together for a brief period of orientation and specialized instruction. They then reported to the activation camp, where they were joined by the cadre. On D-day, the division was formally activated and received the bulk of filler personnel from Zone of Interior reception and training centers.

The division then proceeded directly to training. The training of the division was divided into the following phases, each

**Future commanders will find in the experiences of World War II the answer to many problems in forming new divisions. In general, these problems mainly involved shortages in men, weapons, and facilities**



of which marked a stage in the progress of, attaining the division commander's over-all leadership objective.

Phase I—Basic and Individual—To attain individual proficiency.

Phase II—Unit, including Regiment—To integrate individuals into units capable of fulfilling their particular assigned role in battle.

Phase III—Combined Arms—To weld all the various type units of the division into a coordinated team capable of acting as a whole and maintaining itself under any and all battle conditions.

Phase IV—Review and Field Maneuvers—To gain practice in special operations and to secure an integration of effort with other arms and services.

In any future war, activation and training plans will vary according to the size and degree of training of the Reserve forces available. However, the final objective and the progressive steps in reaching that objective will remain the same. The remainder of this article deals with problems which are inherent in plans demanding rapid expansion of the number of ground divisions in time of war.

### The Cadre

The success of the entire activation and training program is dependent largely on the caliber and training of the officers and men in the cadre. The selection of the cadre is, then, one of the first and most important problems of the division commander.

The senior commanders and staff officers of the division must be men who have spent years in preparing themselves for the demands of war. Their specific training for the leadership of units in battle must have been acquired through training like units, administering their affairs, and employing them in maneuvers or in a past war. They must be men of unimpeachable character in whom the commander can place his utmost trust and confidence.

The remainder of the cadre must be examined carefully. There have been frequent instances in which the cadre system was utilized by unethical commanders as a "dumping ground" for substandard and misfit officers and men. Usually, the majority of junior officers provided in the cadre will prove to be splendid technicians and tacticians. However, due to lack of command experience in handling men in mass, they will be particularly weak in leadership. Their further training and development under the guidance of senior and more experienced officers will be a major problem for the division commander. The officers and men must develop together. Senior, experienced officers must be depended on to provide personal daily guidance and to lead the way.

All of the following actions will assist materially in the selection and training of a qualified cadre:

1. Send qualified selection personnel to the division or installation furnishing the cadre, prior to their departure.
2. Screen the cadre carefully on arrival.
3. Initiate a short training program for the cadre prior to the arrival of fillers.
4. Prepare in detail and disseminate throughout the command a standard for appearance, conduct, and performance of duty expected from all officers and men of the cadre.
5. Require major subordinate unit commanders to establish and operate officer and noncommissioned officer schools.

### Fillers

The majority of the personnel of the division (in excess of 13,000) will arrive at the division during a period of approximately 15 days. These individuals must be classified, assigned, and integrated into a divisional organization in such a way that the requirements of the division are met and each individual is assigned to a position where he can be expected to perform best.



A centralized plan for reception, classification, and assignment of fillers under division control will best meet the needs of both the division and the individual. Interest, aptitude, skill, and ability, must all be given due weight in assignment. If uniform training progress is to be assured, an equitable distribution of personnel must be made with consideration for the particular needs of various type units. For example, in the armored division, tank and maintenance units must receive men with the necessary mechanical aptitude. In airborne divisions, men with the highest physical profile must be assigned to the parachute units. Learning ability must be equally apportioned between all units. If these precautionary measures are not taken initially, considerable readjustment will be necessary later when commanders are busily engaged in attaining training proficiency. Frequent or wholesale readjustment will hamper the integration of individuals into units during the first phase of training. Compatible initial assignment will stimulate individual initiative and minimize subsequent leadership problems of junior officers.

Verification of classifications and assignment should be accomplished under centralized division control, according to a carefully coordinated plan. The administrative personnel of regiments should be used for this purpose. Much of the classification process will have been accomplished prior to the arrival of fillers. However, in addition to assignment, a check of classification records is advisable.

A good reception, welcoming the individuals and indicating thoughtful concern for their comfort and welfare, does much to speed their initial adjustment and lay the ground work for *esprit de corps*.

The program should be planned to:

1. Keep the program moving. Avoid useless delay and long periods of waiting during processing.
2. Keep a central control record. This

serves to properly apportion men among the major units according to their specific needs. Assignments to all companies and batteries are made simultaneously.

3. Keep the men informed. Prepare an information program to orient men quickly on their assignment to units.

4. Eliminate confusion. Processing must work in an orderly manner, smoothly and quickly.

5. Allow a short readjustment period of liberal transfer between units. After this period, minimize transfers.

6. Make certain that men understand that their interests and desires receive consideration, but that the needs of the division must be met.

7. Keep early arrivals busy on a preliminary orientation and training program.

#### Equipment Shortages

Initially, many deficiencies in authorized equipment can be anticipated. These shortages will seriously hamper the development of proficiency and coordination of effort. A gun crew cannot learn teamwork by loading stovepipe or other "simulated" equipment. Commanders cannot learn to control and coordinate the movement of units without equipment to establish communication with them. Men thoroughly understand the reason for battle discipline only when they can actually see the effects of contributing their individual firepower and learn the supervision and control necessary to make that firepower effective. Thus, shortages of ammunition, weapons, and equipment, create serious problems. Essential teamwork is learned only by doing. This requires all necessary equipment. This problem will be particularly acute in armored and other ground units where larger allowances of equipment are authorized.

The only completely satisfactory solution to this problem is to obtain equipment priority allocations. However, delay cannot be completely overcome. The

following additional actions will assist in minimizing the problem:

1. Establish pools of equipment, thus permitting successive units or groups to use the same equipment.
2. Redouble efforts to prevent deterioration of the equipment on hand.
3. Require strict economy in ammunition expenditure.
4. Encourage subordinate commanders to coordinate their training programs to permit equipment to be shifted between major units.
5. Where possible, procure and employ obsolete equipment as a substitute.

#### Successive Cadres

Divisions in training can expect to be levied on to provide cadres for the activation of new divisions. This presents the problem of losing large numbers of trained junior leaders without adequate replacement. In addition, adjustments must be made in the training schedule to provide additional instruction for replacement personnel. This problem will be particularly serious in some units, such as the airborne division, where junior leaders require more lengthy and comprehensive training.

Cadres furnished to new units are likely to be replaced by untrained, or partially trained, personnel. Thus, the division commander must provide additional training for new members while continuing progress in the phased training cycle. Losses of trained officers and noncommissioned officers are likely to be heavy. Unless these losses have been foreseen and provided for, the training program will be seriously hampered. All these situations must be met. The division commander must be determined to attain training objectives within the allotted time, despite any or all of these obstacles.

The following actions will assist in providing for cadre losses.

1. Train two or three men for each key position.
2. Request an initial overstrength.
3. Train junior leaders in the next higher command capacity.
4. Direct major subordinate commanders to quietly select a tentative cadre and take steps to test the ability of the unit to operate without them.
5. Keep officer and noncommissioned officer schools operating at capacity.
6. Train unqualified personnel on off-duty time to permit maintenance of training progress.
7. Utilize the replacement company to provide initial basic training.
8. Fully utilize quotas to specialists' schools.

#### Evaluating and Equalizing Progress

The division commander must constantly appraise the degree of proficiency attained by all the various units of the division. He must seek to balance the proficiency of all units, for in battle the rate of progress of the division may frequently be limited to the progress of the least proficient unit.

The division fights as a co-ordinated team. If two units are committed in battle in co-ordinated attack, the rate of progress of both is established by the less proficient. Hence, in training, commensurate progress must be made by all elements of the division. In training, this problem must be solved by constant evaluation and by increasing the efforts of less proficient units to attain the higher standard.

Proficiency evaluation must be sound. Errors must be avoided in judging the proficiency of units. Some of the most common errors that are made include:

1. Selection of standards inappropriate to the situation.
2. Judging over-all proficiency on tests made in one or two minor areas (e.g., past

performance only, disciplinary record only).

3. Personal subjective standards of measurement substituted for objective army-wide uniformly accepted standards.

4. "Snap" judgments based on superficial, infrequent, or brief, personal observations.

Superior combat value is the ultimate test of proficiency for the division. Superior combat value, combined with superior leadership, produces the will to close with and the determination to destroy the enemy. This concept provides a single uniform standard for the measurement of any unit, or for comparison between units. This standard must be announced to, and described for, the division. Subordinates must visualize the attainment of training proficiency tests as "limited objectives" in the final accomplishment of this standard. All testing must measure the degree to which units have attained this objective. Hence, the leadership problem of equalizing progress resolves itself into accurate measurement of proficiency and subsequent impetus to less proficient units.

To avoid error, proficiency evaluation should be based on the following objective tests normally prepared by Army Field Forces. Use these tests for comparison between units. See that the tests are conducted realistically and are not "staged" for the benefit of inspecting officers.

Phase I—Individual MTP (now ATP) Test.

Phase II—Physical Training Test.

Field Artillery Battalion

Firing Test.

Air-Ground Test.

Infantry Platoon Combat Firing Test.

Squad Test.

Field Artillery Battery Firing Test.

Platoon Leadership Test.

Phase III—Infantry Battalion Field Exercise Test.

Infantry Battalion Combat Firing Test.

Phase IV—Division Test.

Supplement testing with constant personal observation. Outward marks of combat proficiency will be evident in:

1. The personal appearance and physical condition of the men.
2. The appearance and condition of weapons and equipment.
3. The willing acceptance and discharge of responsibility by subordinates.
4. The quiet efficiency with which units accomplish any task.
5. Development and control of firepower.
6. Disciplinary record.
7. Observation of junior leaders in the field.
8. Prompt, accurate dissemination of orders and instructions.

In addition to testing, the Commander must take corrective action. He may direct the staff to compile statistical data on the above subjects for analysis and comparison. He may examine and isolate the cause for training failures and take corrective action to prevent recurrence. He may encourage frequent visiting and observation of training between senior commanders. Finally, he must weed out weak or inefficient leaders.

#### "Overcontrol" in Training

"Overcontrol" in training stifles individual initiative, disrupts the chain of command, prevents proper evaluation, and retards the progress of units.

"Overcontrol" becomes most apparent during the conduct of combat firing exercises. Officers with years of background and peacetime safety concern are overcautious in the development of firepower. Control with flags and umpires reaches such proportion that co-ordination is impossible. The purpose of such exercises is to reproduce the panorama of the bat-

tlefield. "Overcontrol" defeats this purpose. Small unit commanders are deprived of an opportunity to lead their units. Test results are not indicative of proficiency. The end result is to deny leaders the opportunity to prepare themselves to meet the responsibilities forced upon them in combat. This same tendency is observable in administering the division in the training period. Initially, with untrained troops, orders will of necessity include much of the "how" of accomplishing assigned tasks. However, as proficiency is attained, orders should relinquish the "how" of accomplishing tasks to the ingenuity, resourcefulness, and training of subordinates within the sphere of their authority.

To prevent "overcontrol":

1. Insist that units advance and develop firepower under direction of their immediate leaders.
2. Eliminate unnecessary ammunition restrictions.
3. See that all supporting units participate.
4. Avoid too much emphasis on the seriousness of training accidents.
5. Orient umpires and control officers on the effects of overcontrol.
6. Attend field exercises personally and discourage participation of field officers in small unit problems.
7. Restrict the use of flags and control measures to an absolute minimum.
8. Scrutinize orders and instructions issued by the division and subordinate units. Insure that the "who, what, when, and where" of orders are clearly stated to establish responsibility, but that the "how" is left to subordinates to the extent warranted by their training and authority.
9. Require that men be detailed to fatigue, guard, and duties as military units under command of their immediate leaders.

## Training the Staff

The division commander must train his staff for their battle role of securing maximum efforts from every unit of his command, co-operative efforts between all elements of the command, and an integration of effort from all the arms and services represented in the division.

It is to be expected that the division commander will acquire a staff of well-trained, professionally qualified men of integrity, worthy of his complete trust and confidence. Other qualifications may be necessary. For example, certain technical qualifications are highly important in staff officers of the armored division. The airborne division must likewise have staff officers physically qualified to jump. The division commander must train his staff to meet all such additional requirements. Coordinated efforts and harmonious relationships will develop from the staff only after working and living together over an extended period. The division commander must, therefore, take a personal interest in the training of his staff as it is mainly through personal relationship with him that the staff will learn to properly express his leadership. The division commander must make full use of his staff in training, thus preparing them for their combat role.

The following uses of the staff all contribute to assisting the commander to lead the division during training, to express properly his leadership to subordinates, and to train the staff.

1. Use the staff fully as a source of information.
2. Conduct frequent briefings for purposes of co-ordination.
3. Insist that the staff become familiar with the problems of units of the division by frequent personal visits and observations.
4. Try out ideas on the staff before initiating them in the command.

5. Visit staff members frequently and become acquainted with their efforts.

6. Insist on co-ordination in all staff action.

7. See that the chief of staff, as head of the staff group, develops harmonious relations in the staff.

8. See that the staff sets an example to the command, in dress, optimism, co-operative attitude, friendly assistance, and performance of work.

9. Use the staff to supervise and to measure the progress of the division.

10. Take strict measures to prevent staff interference in the chain of command.

11. Encourage staff initiative. Welcome suggestions leading to improvement, but see that they come from the staff and not from individuals.

12. Train the staff to orient their thinking ahead of events.

13. Use the chief of staff to control the instructions and orders prepared by

the staff, thus minimizing the administrative load on subordinate units.

14. See that all staff officers have ready access to their commander.

15. See that the staff is kept fully informed to enable them to plan in advance.

### Summary

It is not intended that this article should present a solution to all of the problems inherent in command of a newly activated division. However, experiences of the past are important to the extent they shed light into the future. Due to the nature of our national military policy, it is reasonable to expect the problems of rapid expansion of the ground forces in any future war will closely parallel those met and solved successfully in World War II. We would be negligent, therefore, not to record and learn lessons of the past in an effort to solve similar problems in the future. Time may not permit learning through the processes of trial and error.

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I greatly admired the manner in which the American Army was formed. I think it was a prodigy of organization, of improvisation. There have been many occasions when a powerful state has wished to raise great armies, and with money and time, and discipline and loyalty, that can be accomplished. Nevertheless the rate at which the small American Army of only a few-hundred thousand men, not long before the War, created the mighty force of millions of soldiers, is a wonder in military history.

*Winston Churchill*

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Our experience during the past 32 years has made it increasingly clear that the determining factor in the rapid mobilization of effective armed forces for a major war would be, more than any other, the provision of the mechanical aids and equipment whereby our manpower can be made effective in combat.

*General J. Lawton Collins*



# MANCHURIA

## A Strategic Trap

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**S**INCE the end of World War II, communism has demonstrated a powerful militancy that has commanded attention throughout the world. Particularly in Asia has a positive communist militancy been evidenced. In China, sweeping communist military successes represent the culmination of large-scale offensives in which Chinese National Government forces have been dealt a series of resounding defeats.

There has been considerable comment on the reasons for the failures of the Chinese National Government in the civil war against the communists. Most comment centers on many diverse, although relevant, factors. Despite the intimate connection between the political, economic, and military factors, an almost universal observation in regard to the war in China charges the steady disintegration of the Government's position to military failures. In particular, reasons ascribed for the Nationalists' military debacle are: corrupt and incompetent leadership, ineffective tactics, and supply and transport deficiencies. Able observers and skilled reporters subscribe to these points of view. Writings by such individuals are often documented with specific charges. Facts so presented outline a progressive deterioration of Nationalist capabilities. This, in turn, had led to the establishing of the summer of 1947 as the point in time when the strategic initiative in China passed from the Government to the communists.

### Initiative Lost in 1945

While historians may have considered several aspects which deserve notice, exception to this point of view may be taken on military grounds. Militarily, the Chinese National Government forces never held the strategic initiative after the fall of 1945. Once committed to operations in Manchuria, it was impossible for Nationalist forces to resolve military aspects of the struggle for control which was then coming into sharp focus.

In China, a bitter political and military struggle between the Government and native communists had existed for nearly 20 years. This struggle was intensified by recurring military operations, and the Chinese communists maintained sizable ground forces that were organized, trained, and led by able commanders.

Overshadowed in a large measure by the Japanese war, this long-standing struggle was influenced by conditions resulting from the war in China and global events during World War II. Many influences could be explored: e.g., Yalta, the late General Stilwell, the Sino-Soviet pact of 1945, United States mediation in the civil war. Militarily, however, the fact remains that in 1945 the Nationalists could not accomplish required, concurrent missions, i.e., occupy, pacify, and consolidate simultaneously the vast areas of Japanese-held China and Manchuria.

Manchuria represented an enigma for the Chinese government. It was in

Manchuria that the preliminary events to World War II may be said to have originated. It was over Manchuria that the Chinese ultimately fought the Japanese. The productive capacity and natural riches of the area were essential to rehabilitation of the war-damaged Chinese economy. Soviet occupation of the area, during the final week of the war, added to the complexity of the problems then facing the Chinese Government.

### **"Cradle of Conflict"**

Manchuria has been called the "Cradle of Conflict" and the "Tinderbox of Asia." In fact, it had long been an arena in which the conflicting interests of Russia and Japan were pitted against each other. Historically, the area served as a battleground for those powers, despite nominal Chinese sovereignty. The vast majority

naval base. The treaty also provided that the USSR should share ownership in the Manchurian railroad system. A significant part of this treaty was that the USSR agreed to render physical aid and moral support to China, and that this aid and support was to be given only to the National Government.

### **Japanese Held Areas**

In regard to the Japanese held areas of China proper, several considerations had bearing on the situation. Consequent upon the struggle between the Chinese Government and the communists, an effort had been made to contain the communists. Even during the War, sizable Nationalist forces were committed to a blockade of the communist base area, around Yen-an. While this effort was effective in denying communist movements either to the west

***Chinese Nationalists lost the strategic offensive in 1945 when they became committed to Manchuria, the "Cradle of Conflict," and failed to check the communists there and in North China at the same time***

of Manchuria's population is Chinese, and China apparently hoped for the area to become the base of a long-range industrial development. Reoccupation of Manchuria was essential to China's needs and important to the prestige of the Chinese Government.

The Sino-Soviet treaty of August 1945 gave to the Soviet Union a preferential position in Manchuria. It is interesting to note that at a time when extraterritorial privilege was bowing out in China, the preeminent position of the Soviet Union should be established by treaty. Among the provisions of the treaty, there was a stated recognition of Chinese Government sovereignty over Manchuria; a promise by each signatory of non-interference in the internal affairs of the other; establishment of Dairen as a free port; and designation of Port Arthur as a joint

or the south, it impeded in no way an extensive communist infiltration east and north into Japanese-held areas. Actually, the Japanese generally controlled and held only the principal cities and main lines of communication in North and Central China. The communists were able to extend an effective military and political control throughout rural regions of those areas.

When VJ-day arrived, the communists had forces that were disposed in the area of key cities, such as Peiping, Kalgan, Tsinan, Tientsin, Tsingtao, Nanking, and Shanghai. Government forces were located principally in South-Central and Southwest China. When Japan was defeated, a vacuum threatened to replace the relative political and economic stability that she had established and maintained in the occupied areas of China. The Government

and the communists entered into a race for control of vital areas in North and Central China. In this race, the Government was at a serious positional disadvantage.

Although, in 1937, the communist armies had been designated as part of the over-all Chinese forces in a "United Front" against the Japanese, they were, in fact, independent of Government control. In August 1945, Chu Teh, top communist commander, ordered his troops to move on the key areas of China, to take the surrenders of the Japanese forces in those areas, and to resist any interference with communist operations.

### New Phase of Struggle

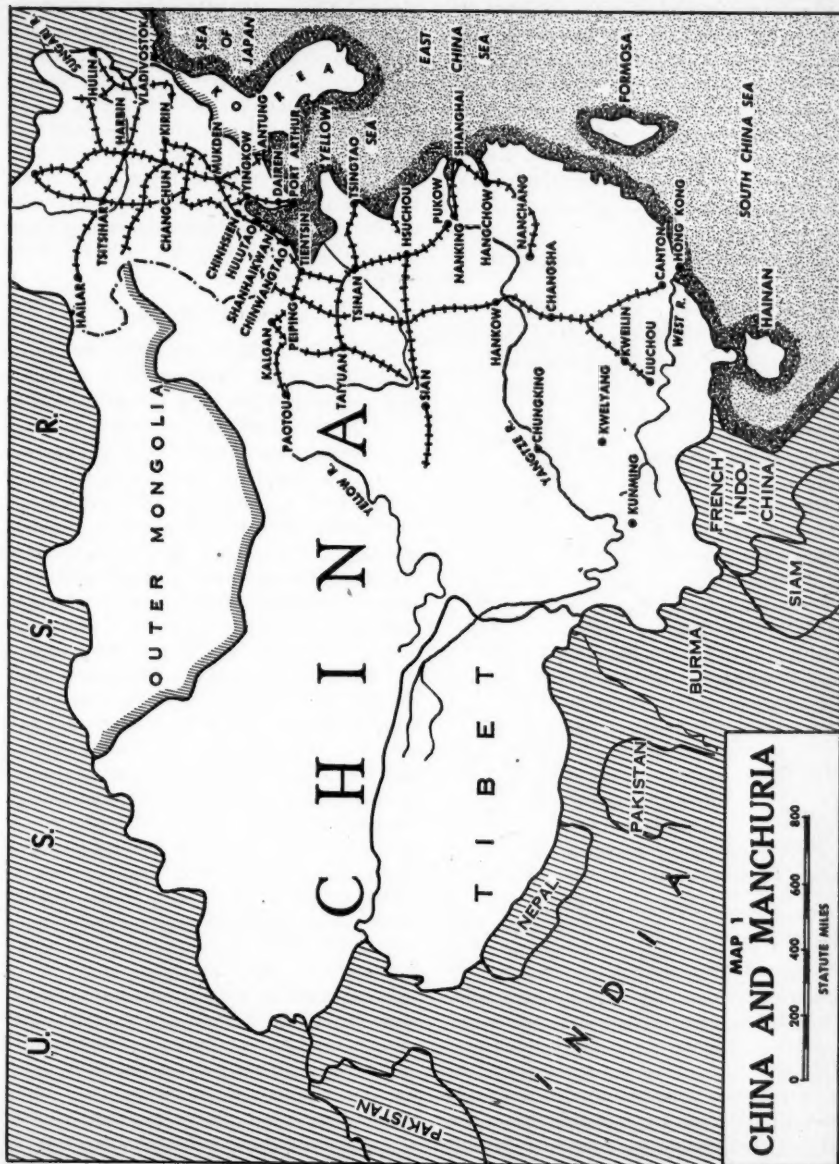
With that order, a new phase of the long-standing struggle between the Government and the communists was signalled. It was apparent that if the communists could receive the surrender of large Japanese forces, they would gain the arms that would enable them to hold the vital areas of North and Central China. In most instances, Japanese field commanders did not recognize the communists as authorized to accept surrenders, and they adhered literally to the surrender terms which provided for dealing with Chinese Government or other Allied representatives. The action of Japanese field commanders, coupled with United States airlift of Nationalist forces to Peiping, Nanking, and Shanghai, and the arrival of the US Marine III Amphibious Corps at Tientsin and Tsingtao, had the effect of denying communist control of certain key areas of North and Central China. During September and October 1945, Chinese Government forces moved by US air transport approximated 110,000 men. These forces included three Chinese armies, each consisting of three infantry divisions.

The Nationalists faced difficult military problems at this time. They were responsible for the occupation of vast areas; disarming the widespread and numerous

Japanese forces disposed throughout China, Formosa and northern French Indo-China; and for providing the basis of Government control of key areas within China, against which communist attacks were likely. Despite the numerical strength of the Nationalist forces, then approximately 4 million men, time and space factors, among other considerations, precluded an immediate, satisfactory redistribution of available troops to fulfill required missions. Under the most favorable circumstances, it would have required 5 months to accomplish necessary Chinese Army moves within China proper. Soviet occupation of Manchuria, and an expected orderly take-over of that area at a later date by Nationalist forces, were factors the Government had to consider.

### Nationalist Moves

Nationalist occupation movements and operations during the early fall of 1945 gave the Government control of the provinces south of the Yangtze River and the principal northern cities. The broad communist control of rural areas of North and Central China, mainly established during the period Japanese forces occupied those regions, remained firm. In addition, the communists occupied Kalgan, the Mongolian gateway through the Great Wall to North China. This city became military headquarters for Eighth Route Army operations in North China and Manchuria. Kalgan was an important and worthwhile base of operations. It afforded factories, machine shops, and railway facilities. There, at least, the communists did take over considerable quantities of Japanese arms and equipment, including a reported 60 tanks. From Kalgan, communist operations were afforded depth and strength because they were backed by a base of power that was established across Soviet-dominated Mongolia, Siberia, and Manchuria. The Chinese communists, in effect, were the van of that base of power.

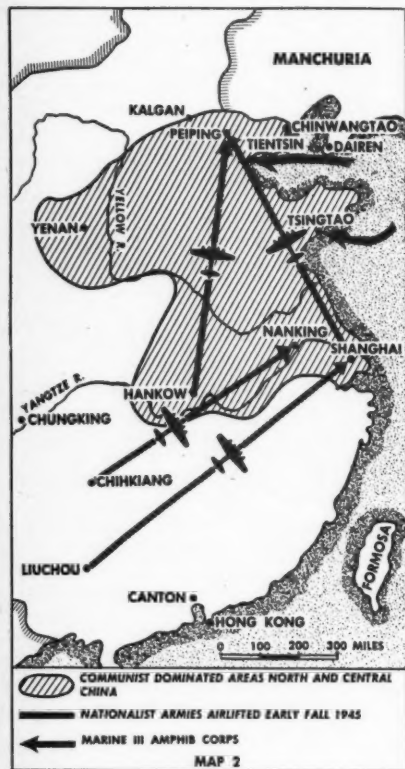


Communist troops, with the apparent objective of securing additional Japanese stockpiles of arms, made a number of abortive attacks on principal cities of North and Central China during this period. The Nationalists made immediate efforts to open and maintain communication between key cities and areas held by Gov-

Central China, not committed to holding territory, made good use of guerrilla tactics. By continued harassing, widespread demolitions, and raids on smaller garrisons, the communists exploited their available resources. While avoiding positional warfare, communist forces often attacked in strength in order to force Nationalist shifts and redistribution of forces. Throughout the area of North and Central China generally, the communists held the tactical initiative.

### Communist Tactics

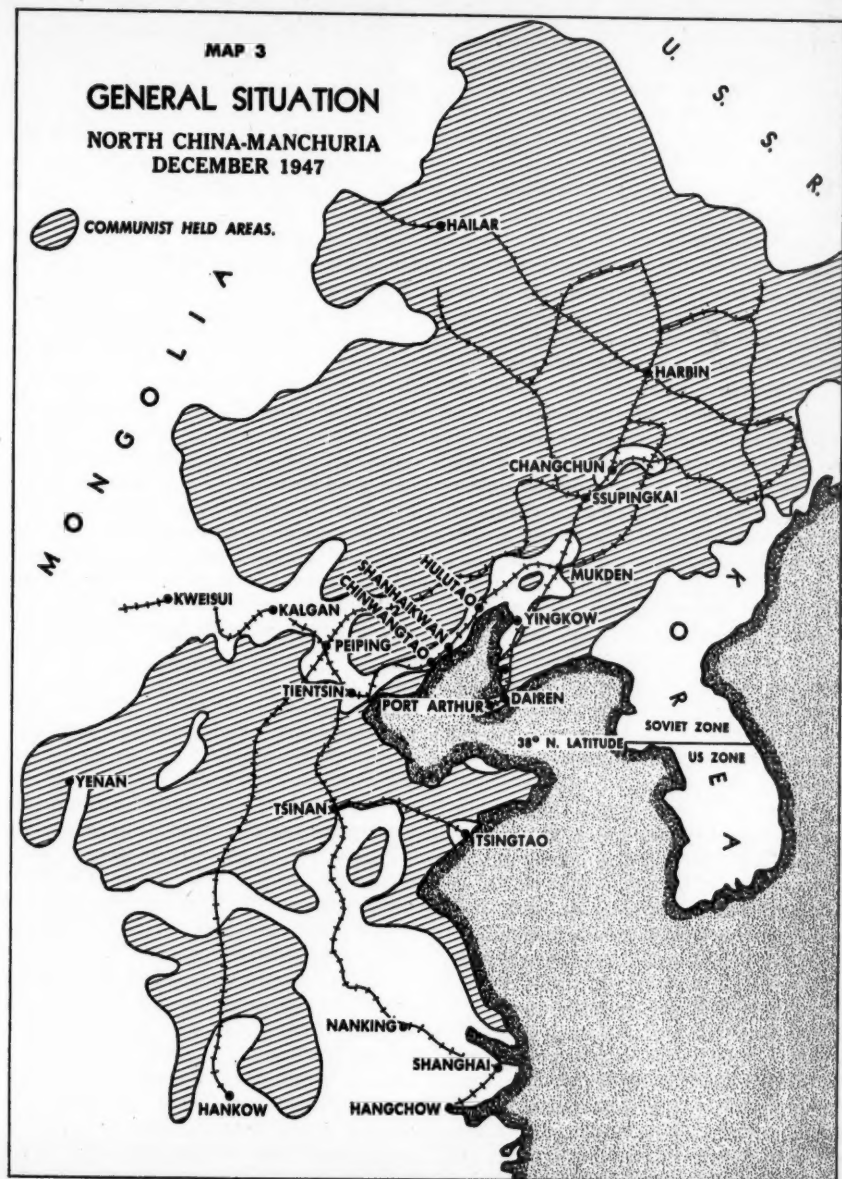
The military clashes in North and Central China were staged against a large and varicolored backdrop of national and international political and economic considerations. Communist tactics and operations were generally obstructive, denying Government consolidation of these areas, and having the effect of a continuing attrition on Nationalist men, money, and material. Communist operations influenced strongly political and economic developments within China. However, communist movements and activities were of particular military significance. The extent and efficacy of communist operations frequently forced the commitment of Nationalist local reserves. Indicative of the relative dislocation of Nationalist forces in North China is the fact that approximately one-quarter million Japanese troops were still armed and guarding towns and communications there in November 1945. Generally, however, large stocks of Japanese arms and munitions were not available to the communists in North and Central China.



ernment forces. They were, accordingly, committed to garrisoning these cities and to holding the rail lines and communication centers. Communication between the key areas was essential to the country's economic rehabilitation, apart from the logistical requirements of the Government forces. Communist forces in North and

Reports of the arrival in Manchuria of elements of the Eighth Route Army, the main strength of regular communist organized field forces, were widespread during the fall of 1945. It was claimed that these troops were gaining large stocks of Japanese arms and equipment. Coupled with information concerning the large-





scale looting of Manchurian industry by Soviet forces, the Government was faced with an increasingly serious and wider problem. The Government intended to recover the area of Manchuria both for its considerable essential, industrial potential and its agricultural productivity.

As a preliminary to taking over the area, Chinese government officials, principally administrators and key technicians, had been sent to Manchuria. According to Chinese Government statements, they became virtual prisoners of the Russians. Soviet occupation forces were said to have warned such personnel they could not guarantee their protection. In one case, a group of Chinese officials which had gone to Manchuria with the consent of the Soviet commander was murdered near the Anshan mines. Soviet statements about this event were that "300 armed bandits" had murdered the Chinese officials. The Chinese Government claimed that only Soviet troops were in the vicinity and that Soviet guards were on the train in which they were killed. Thus, while Chinese military occupation of Manchuria had been a recognized requirement, based upon an eventual withdrawal by Soviet forces, such untoward events accelerated Nationalist efforts to enter the area.

#### Soviet Activities

Dairen, a principal port of the Far East, was the natural entry to Manchuria. Transported in United States ships, Nationalist forces were denied permission to land at Dairen by the Soviets, because of a narrow and literal interpretation of the Sino-Soviet treaty regarding the status of Dairen as a "free port." Following a hurried conference at Changchun between Chinese Government officials and the Soviet Far Eastern commanders, Marshals Vasilevsky and Malinovsky, it was announced that the Russians had guaranteed a landing in Manchuria. Dairen and Port Arthur were specifically excluded as

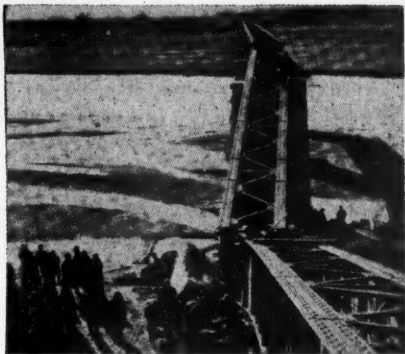
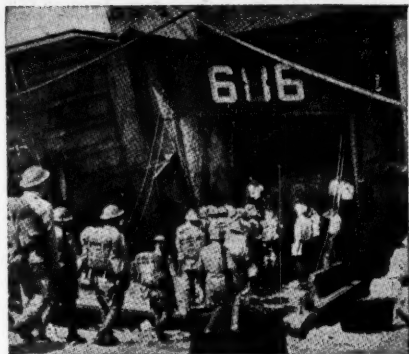
landing places. The Soviets proposed Yingkow as the port to be used.

Ships of the US Seventh Fleet, under the command of Vice Admiral Daniel E. Barbey, USN, were transporting Nationalist forces to Manchuria. A rapid movement from Dairen to Yingkow by this force had an interesting development. On arrival at the latter port, Soviet forces occupied the place. A parley between Chinese and local Soviet commanders resulted in agreement for a landing and take over by Nationalist forces the next morning. During the night, communist troops moved into the city and by daybreak were in entrenched positions ready to oppose the landing. Seeking to avoid intervention and involvement in what remained an undeclared civil war, the American ships withdrew and landed the Nationalists at Chinwangtao in North China. Denied the use of Manchurian ports by the Soviets, Nationalist troops faced strong communist forces grouped in North China and Manchuria across the remaining overland path of entry into the latter area.

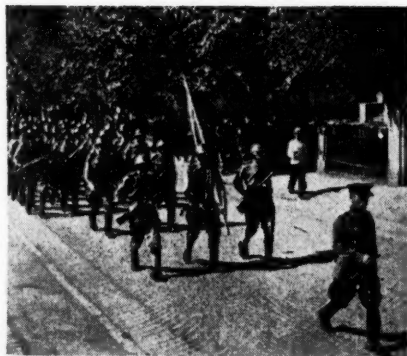
#### Time Factor

Time became a factor of increasing importance to the Government. It appeared necessary to consolidate and to pacify the areas of North and Central China. It was apparent that extensive military operations in those areas were required. However, reports persisted—some of them later substantiated—that the Soviets were permitting and probably assisting the entry of large bodies of communist troops into Manchuria.

While the communists had not gained appreciably large stocks of Japanese arms in North and Central China, the very considerable stockpiles of arms, ammunition and equipment of the Japanese Kwantung Army in Manchuria were reportedly becoming available to the communists with Soviet knowledge and consent. The communists were being given the opportunity



The Chinese Nationalist attempt to take over Manchuria proved a strategic trap which over-extended their forces fighting the communists. Left, above, First Army troops boarding a landing ship which took them to Manchuria early in 1946. Right, above, railway bridge over the Shao Ling River, wrecked by the communists to delay the Government forces. Right, a Nationalist commander and troops arriving at Chinchow. Soviet tactics also hampered the Nationalist occupation. Left, below, Soviet infantry occupying Harbin to take the surrender of Japanese troops. Right, below, Soviet airborne troops on the airfield at Harbin.



of organizing a large military force in Manchuria and of establishing political and economic control there. Despite those developments, the priority of missions to be assigned Nationalist forces logically required first, that the areas of North and Central China be consolidated; and later, with their rear and flank secured, that Manchuria be occupied.

As a consequence, generally, only token forces were first allotted to the Nationalist occupation of Manchuria. These included the 13th and 52d Armies landed at Chinwangtao, which fought north to Shanhaikwan and Hulutao, giving two additional small ports of entry to the Nationalists. Newspaper reports at the time mentioned repeated Chinese attempts to negotiate with the Russians for flying Government troops into Manchuria. Such reports referred to Soviet insistence on specific, narrow limitations regarding the time period during which Nationalist forces might be flown in before Soviet withdrawal. It was apparent that, under such arrangements, Government forces would be placed in unduly extended positions, and that troops so committed would exist as islands in an area fast becoming dominated by a growing communist troop strength. A *New York Times* correspondent in a dispatch from Chungking dated 20 November 1945, commented:

"The Russians seem to be following a policy of declining to hold Manchurian points until Chinese Government control can be consolidated and at the same time of taking no action to hamper the growing communist influence."

Although information was available that the Soviet forces then occupying Manchuria were systematically looting the area, the Chinese were, in effect, forced to request the Soviet on two occasions to postpone their withdrawal. In part, necessary operations in North China made this essential. Three Nationalist columns were in motion in North, Central, and East

China at the time. In the east, troops were being landed at Tsingtao and Tientsin preparatory to moving against communist forces in Shantung and Hopeh provinces. A central column was set in motion north along the Tientsin-Pukow railroad. West of this force, another northward movement was begun from Hankow, aimed to clear the railroad to Peiping.

Coinciding with the Nationalist moves to reopen communications in North China, the Soviets announced their intention to withdraw from Manchuria. Faced with an expanding communist influence and military strength in Manchuria that was ready to move into areas evacuated by the Soviets, the Government was in a difficult position. The required campaigns of North China were, in effect, foregone, and the Nationalists, still denied the use of the chief ports in Manchuria, prepared to fight their way into the key cities there. Following a series of scattered clashes enroute, the Nationalists moved the 250 miles north from Chinwangtao into Mukden, arriving there on 12 December, following agreement with the Soviets for the takeover of the city. On that same day, one division of the Nationalist 94th Army was air-lifted into Changchun, 170 miles northeast of Mukden.

### US Policy

Announcement at the time of United States policy towards China had important bearing on later events. Pledged to a strong, free, united and democratic China, the United States pointed out the threat to world peace that existed as a result of the war and unsettled conditions in China. An immediate end of hostilities between the National Government and the communists was made essential.

In late December 1945, the communists, with a steadily worsening military position in North China, urged an "unconditional, immediate, and nation-wide truce." The Government proposed that "all hostili-

ties shall cease and railway communications shall be restored." The truce was agreed upon effective 13 January 1946. A specific agreement of this truce provided that the "cessation of hostilities order does not prejudice military movements of forces of the National Army into or within Manchuria which are for the purpose of restoring Chinese sovereignty." In addition, the truce stipulated that:

1. All hostilities would cease immediately.

2. All troop movements would also cease, except as noted regarding Manchuria, and south of the Yangtze where Government sovereignty was unchallenged.

3. All lines of communication would be cleared.

#### **Reserves Committed**

Based upon the provisions of the truce agreement and apparently reckoning that the "cease-fire" would guarantee the status quo in North and Central China, the Government then committed some of its best troops to Manchuria. From mid-January to mid-March 1946, the New Sixth Army and the New First Army, both US trained and equipped, were moved to Chinwangtao. Representing what is generally conceded to have been some of the most efficient fighting forces of the Chinese Army, these troops were, in effect, part of the Government's strategic reserves then available. Another reason that troops of the Nationalist strategic reserve were committed in Manchuria was occasioned by the eventual Soviet evacuation of the area, completed during the spring of 1946. The strategic position of communist forces in Manchuria, principally in the north and west-central regions, was such that it was likely that efforts to occupy evacuated territory and regions would result in serious conflict.

In mid-April, heavy fighting broke out in Manchuria. As indicated above, one division of Nationalist troops had been airlifted to Changchun. This poorly equipped

garrison of about 7,000 was attacked on 14 April by about 50,000 communist troops just as the last Soviet units withdrew from the city. Press reports stressed the communist use of Japanese artillery, machine guns, antitank guns, and mortars in the attack. At the same time, the Nationalist New First Army was driving north from the Mukden area to relieve the Changchun garrison. This force was delayed by strong, prepared communist defenses in the area of Ssuningkai. With its relief held up in the south, the Changchun garrison was surrounded. Changchun fell to the communists on 18 April.

#### **Danger to Communications**

Delayed for a month by strong communist defenses at Ssuningkai, the Nationalists had reason to ponder future moves, for communist operations in North China at that time threatened the main overland supply route to Manchuria. This route was tenuous. The available line of communication from China into Manchuria ran north along a narrow corridor between the mountains and the sea through Jehol province. Faced with the prospect of large-scale operations in Manchuria, this route was recognized as inadequate and particularly vulnerable. Strong communist forces were based throughout Jehol.

Dairen, the natural entry and base of operations for Manchuria, was denied to the Nationalists. The main north-south railroads of Manchuria had a terminal there. Utilization of Dairen as a port and a base for operations would have provided excellent facilities and enabled a systematic build-up of forces, with a phased, secure northward movement. To open and maintain additional routes from Peiping to Mukden indicated further campaigns against greatly strengthened communist forces. The strategic position of communist forces in Manchuria proper at the time dictated that the Nationalists could hope to occupy only a deep and ex-



posed salient there. The psychological advantage of the communists, operating everywhere in Manchuria within no more than 200 miles of Soviet dominated areas, was of great importance.

Despite the announced truce in North China, fighting continued there. Widespread, large-scale operations remained likely in these areas. The decision had been made, however, and Manchuria continued to represent a steady drain on Nationalist strength. In June 1946, the Nationalists retook Changchun. Except for small bridgeheads established from time to time thereafter, they never moved north of the Sungari River. Nationalist military operations in the area were retarded by several truces during 1946. Limited activity was devoted to efforts at stabilizing a front along the Sungari and to consolidating the position in southern Manchuria. Even these efforts only extended further the Nationalists' limited strength. Successive communist offensives kept the Nationalists off balance during the winter of 1947. These increased in intensity. Casualties and a continuing attrition required that additional government forces be transferred from North China.

#### Communist Strategy

Such events demonstrated that it was communist strategy that was being successful. The Nationalists everywhere were reinforcing one area at the expense of another. Even in a "successful" defensive operation in Manchuria, the Nationalists lost men and equipment. US trained Government troops were committed to extended operations for which they were ill-suited. Taught to attack and experienced in offensive operations, they garrisoned cities and guarded rail lines. In continued defensive fighting, these units lost well-

trained officers and men as casualties. Ultimately, the US-trained units lost their real identity through such attrition. A lack of replacements seriously depleted the strength of Nationalist units, and those which became available lacked training or experience.

The deterioration of Nationalist troop units in Manchuria was matched by a steady worsening of their military position. Communist interdiction of communications and isolation of the few cities held by Government forces progressed through 1948. Although events rushed to a climax during the early part of this year, the issue had been resolved about 3 years before.

Chinese Government forces, committed to operations in Manchuria, were like an over-eager defensive tackle breaking into an opponent's backfield. The play calls for an easy entry. The tackle romps in and is set upon, hard. The Nationalists were in a similar position. It was necessary to do much with little. Despite the provisions of the Sino-Soviet pact of 1945, Soviet actions increased tremendously the Nationalists' problems. Soviet withdrawal from Manchuria precluded required operations in North China. Because of the operations of widespread and greatly strengthened communist forces and of Soviet actions coincident with Chinese communist moves, the Nationalists were forced to commit selected troops to Manchuria. A part of the Government's strategic reserve—likely never again reconstituted—these particular units deteriorated as a result of continuing attrition in purely defensive operations. Literally, "The Cradle of Conflict" and "Tinderbox of Asia" had become a "trap" into which a struggling Nationalist Government was inveigled and where its lot and fortune were largely lost.

# Twenty Divisions in Reserve *120*

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*The opinions expressed in this article are the author's and do not necessarily reflect the views of the Department of the Army or the Command and General Staff College.—The Editor.*

**S**UPPOSE someone told you that General Eisenhower had a reserve of 20 divisions which were kept out of action throughout the War in Europe. You would laugh. You would point out that at War's end every United States division was fighting, except two—and one of those two was an airborne division waiting at departure airfields ready to take off.

Yet you would be wrong. General Eisenhower did have 20 divisions which he never used and at War's end they still had not been committed. At least he had the equivalent of 20 divisions, and by "equivalent" I do not mean such intangibles as hidden abilities, leadership, or discipline. I mean 380,000 able-bodied American soldiers, ready, willing, and able to fight. They sat out the War in reserve.

To understand how all this came about, you must know something of the dull business of supply. I should know something of that subject because I get paid for knowing something of it—and yet, sometimes, I wonder. Sometimes I feel I know

almost nothing about supply. Sometimes in the black reaches of the night it comes to me that the combat soldier ignores this subject on the grounds that the supply services have the situation well in hand. Then I remember those 20 divisions—380,000 men—that General Eisenhower was induced to hold in reserve, and I wonder. But more of that later.

## If Supply Stops—

Somewhat over-simplified—but not much—this is the manner in which an army is supplied. A division carries with it enough to last through a good, rousing fight for about 3 days. It can tough it out, losing a little ground now and then, for about 5 days. Without any support at all, someone will have to watch the gasoline consumption very carefully to keep going for 3 to 5 days. The rations will get mighty short. But the division can still fight, make a fair showing, and be ready to go again when help comes.

Back of division are the army supply points. These hold enough supplies to take care of everyone for 2 or 3 days—more if things get tough and all the excesses are sweated out.

If suddenly there was an absolute blank in rear of the army supply points, it would take about a week before trucks

**The logistician's dilemma is in determining the best balance between the logistical and tactical forces. Should he take no chances with supply, or should he release men to fight alongside the combat soldier?**

would be seen abandoned alongside the road out of gas. It would be about a week before the local farmers would be robbed of their last chicken and the soldier commenced to long for those K-ration crackers he threw away. About a week would pass before the artilleryman fired his last round and moved up toward the front lines to die with the infantry.

If, every 2 or 3 days, you fill up the stocks in the army supply points and in the divisions, the war rolls along quite merrily with the infantryman fighting and dying and the rest of us doing the best we can. If you cut off the flow of supplies, the war rolls to a stop in about a week.

#### Supply Reserves

To be prepared in case the flow of supplies is cut off, we have reserve levels of supply. These are kept in depots in rear of the army supply points. Lots of depots: army depots, advance section depots, intermediate depots, base depots, key depots, filler depots, and master depots. To run these depots, or more specifically, to use Field Manual 101-10 language, operating personnel required for storage within a theater of 4,000,000 men, requires 380,000 men or 20 divisions more or less. Twenty divisions that do not fight. Twenty divisions that would be maintained in the theater, each requiring as much or more supply to maintain it as does a fighting division. Twenty divisions that are in reserve in case the flow of supplies breaks down.

Now, no one is going to advocate fighting a war without reserve levels of supply. Not even a logistician with a troubled conscience. Still, 20 divisions are a lot. There are only 100 divisions in a 4,000,000-man theater. Twenty divisions is a lot of reserve.\*

\* The figures on the European Theater in World War II (100 divisions and 4,000,000 men) are not exact. They were chosen for ease of computation and are close enough for the purposes of this discussion.—The Author.

Just for the laughs, let us go back to France and imagine those 20 divisions as being under arms instead of in the warehouse. The Battle of the Bulge would have been a cinch, of course, hardly calling for more than half of this reserve. Twenty divisions could have reached out and tapped that little penetration lightly on the nose and sent it reeling back from whence it came. Rotation from the front lines might have raised morale a little. With 20 extra divisions, no division would have to spend more than 4 months out of 5 in the line—a gentleman's way to fight a war. If we had gone on into conquered territory, this reserve could have been peeled off to protect our lines of communication without losing their status as theater reserve. The possibilities are fascinating.

Admitting there are considerable advantages to having a theater reserve of 20 divisions, what are the risks involved? What is the price we would pay in dispensing altogether with reserve levels of supply?

#### The Supply System

In order to figure the odds, we must know more about the supply system. Assume that convoys arrive from the United States every Monday. Supplies are unloaded Monday, Tuesday, and Wednesday. On Thursday, Friday, and Saturday, deliveries are made to army supply points. What happens if one whole convoy fails to arrive? Theoretically, the next convoy will find nothing but dead heroes. Actually, all sectors of the front will not be active during this lean week. Some divisions may be able to last 10 days, and the next day the next shipment begins to trickle in. Some divisions will run down completely. Any number of these up to 20 can be relieved by the reserve divisions, who can hold out for 5 more days. Some divisions will be wiped out.

The loss of an entire division, or a number of divisions, is not to be taken lightly. It is, however, a risk that has

been taken in war with full knowledge of the consequences. The risk has always been a tactical risk, never a logistical risk. Yet the question begins to present itself as to whether it might not be worthwhile to effect some sort of balance between the tactical risk and the logistical risk. Should we not take at least some of those 20 divisions and transfer them from the logistical reserve to the tactical reserve? General Eisenhower ended the War with a tactical reserve of two actual divisions—one standing by, and one at the airfields ready to go. Could this same close figuring be applied to logistics so that a commander ends a war with two divisions' worth of supply reserves—one standing by, and one at the airfields ready to go? Actually, General Eisenhower ended the War with 20 divisions' worth of supply reserves.

As in any over-simplification, there is some error in the supply picture just sketched. Convoys do not arrive every Monday morning carrying a balanced load of all items. Even if they come in every week or 10 days, the loads are not balanced. This means that for any one item there is no replenishment for at least 30 days. Hence, there must be 30 days of that item on hand to last between shipments. If the ship carrying that item is sunk, it will be 30 more days until replacement arrives. So we must have 30 more days of reserve, or a total of 60. These are called the operating level and the minimum level of supplies. Their sum is called the maximum level, and this maximum level is always at least 60 days.

There is certainly administrative convenience to this system of supply. The services will tell you there is administrative necessity. There are many reasons for it. However, if they cost us 20 divisions, the reasons ought to be mighty good reasons and not just somebody's bright idea. Our high commanders should know them in detail. The same coolly calculated risk that goes into tactics should have its counterpart in logistics.

The 20 divisions required to store this reserve in an overseas theater only begins to tell the tale. The national effort that went into the manufacture of 60 days' supply for 4,000,000 men was not available in the fight. The ZI storage, the handling, the shipping overseas, the handling and movement while overseas, are all fighting strength that is in reserve; the total is not small. A Transportation Port Company can unload 800 tons a day and its aggregate strength is 219 officers and men. Sixty days' reserve for 4,000,000 men is about 8,000,000 tons. Load that at the ZI depot, unload it at the ZI port, load it on a ship, unload it at the overseas port, load it on trucks, unload it at the base depot, and you begin to see quite a few Transportation Port Companies forming up at 800 tons a day trying to handle 8,000,000 tons of reserves; all they do is load and unload. This is, of course, logistics with no risk, or the principle of being strong everywhere, which we think is wrong in tactics. It is admittedly this because we say, those of us who do not fight, that nothing is too good for the combat soldier. We must not let him down. And there is my dilemma as a logistician. How do I let the combat soldier down the least? By taking absolutely no chances in logistics, so I can say I never let him down. Or by springing 7 or 8 of my 20 reserve divisions, and sending them up there to fight alongside the combat soldier. Where is the balance?

### Where Is the Balance?

Frankly, I have no idea where the balance is. Our field manuals do not mention any such balance. They do not even hint that there may be such a balance somewhere. Every one of our general staff officers, as he goes forth dewy-eyed into the world, is convinced there is nothing too good for the combat soldier. Not one of them would accept less than a 60 day theater level of supplies. Yet this is 20

divisions out of a hundred. Maybe we ought to wonder about it a little.

There are a couple of other angles. First, we may not have time to build up any such reserves of supplies. If we do not have this time, we have lost our 20 divisions. Three hundred eighty thousand men are a potential of 20 divisions, but if we have guessed wrong and trained them in storage and issue, we won't get any fighting out of them. We can rush them up to the front to die, but we won't get 20 divisions worth of fighting out of them. Second, these 60 days of supply, these 380,000 men, the ports they come through, the shipping that brought them over, and the warehouses they occupy, all offer remunerative targets for the atomic bomb. Then, although we have been accustomed to luxury all our lives and gone to war in a magnificently wasteful way, are we justified in teaching the rest of the world to live in such high style? By the rest of the world, I mean our friends. We have military missions all over the world. What do they teach? If they teach what is in the field manuals, it is luxury and no chances on logistics. It is a concept that takes 20 divisions out of every hundred and holds them in reserve.

#### Waste

That may not be so good. It may, in fact, be catastrophic, and my conscience bothers me. And yet, sometimes, when my conscience gets too annoying for comfort, I answer back. I point out to my conscience that it is talking just like a combat soldier.

I say, "Look, I know I do not fight, but did it ever occur to you that neither do I command?"

I see waste of supplies and equipment all the way from the front lines back to the training camp. This waste is one of the big reasons for my reserve and I can do nothing about it except make urgent

recommendations. I see waste to such an extent that during the War the Commanding General, Twelfth Army Group, had to write a letter to every individual soldier in his command and plead with him not to throw away his supplies and equipment.

I say, "Look, if you want your 20 divisions, stop heaving your stuff into the ditch."

That is not all. I see trucks rolling up and down the road without a full load on them and I have to maintain the roads and bring up gas for the trucks; all that is part of my reserve levels. I see ammunition piled up at a gun position and abandoned there as the fight moves on. I see soldiers loaded down with excess equipment that they do not want and cannot use. I see them throw it away, and I have to pick it up, fix it up, and give it back to be thrown away again.

I say, "Look, if you want your 20 divisions, sweat down to just what you need to fight and no more."

And lastly I say, "Look, everybody wants to gamble on logistics, but they want someone else to do it. If gambling is going to start, it must start with the infantry company. The first thing to sweat out are those few little extras the supply sergeant takes along just in case. Then the regiment has to take a chance and gamble and still underwrite the company. And the division. And the army. And, finally, the theater. Now you can have your 20 divisions."

War is all one gamble, and the sum is tactics plus logistics.

Staff officers do not gamble. Staff officers make recommendations and will always recommend a sure thing. The commander must figure the odds. The commander must take the chance.

Logistics, like all the other hundred thousand different things in war, is a function of command.



# Modernize Your Speaking Ability Hm

Colonel H. F. Harding, *Coast Artillery Corps (Res)*

**I**F YOU are a senior officer of the Army, you are practically required to be a frequent public speaker—whether you like it or not. Officers are expected as part of their professional duties to be able to make good public appearances. The demands for such appearances have increased in recent years. If you are aware of your full responsibilities, you will certainly not neglect to brush up and improve your normal speaking ability.

Officers of the Army on duty with the National Guard and the Organized Reserve Corps are constantly required to give lectures and conferences. Commanding officers and staff officers stationed in or near cities and towns are regularly called upon to speak before business and civic groups and organizations. There are ceremonial occasions throughout the year when officers are often invited to take leading parts. These include such events and holidays as Armed Forces Day, Armistice Day, and Memorial Day.

If you wish to increase your professional capacity, you will not hesitate to accept invitations to speak on opportune occasions. The constant requirement of presenting a realistic picture of the purpose and status of the Army to the public

makes it desirable for officers to do their full share. Not only is it necessary to present a good understanding of the *needs* of the armed services, but it is always wise to build up *good will* for them. Nothing creates good will so quickly as an especially fine oral presentation. With the advent of television, speaking opportunities are bound to increase, just as they did when radio broadcasting began 25 years ago.

Every career officer of the armed forces must consider himself in a real sense a public information officer in addition to his other duties.

## Selecting the Best Subject

The commonest question which officers ask when invited to give a talk is: "What shall I talk about?" The answer is simple. Talk about what you are best qualified to talk about—your present assignment, your most significant World War II experience, your conception of the present role and status of the Army or the particular element thereof with which you are most concerned. Unless your assignment suggests it or the occasion demands, your audience will not expect you to carry on extensive technical research

***Military men have a vital obligation to the service, to their country, and to themselves to learn to speak well in public. In this article, an authority tells how officers may improve their speaking abilities***

in order to become an authority for one occasion on guided missiles, the atomic bomb, or the implications of future warfare.

If you expect to be called upon to speak with any regularity, you will wisely concentrate on one or two topics upon which you already have a solid foundation of firsthand experience. If, for example, you are the commanding officer of an ordnance depot, talk about how it operates and its relation to the community in which you serve. If you are on duty as a Professor of Military Science and Tactics at a state university, talk about the way the Reserve Officers Training Corps training fits into our national security program. If you are engaged in supervising tests of newly designed equipment, talk, if you can, about their capabilities and their improvements.

After you have settled upon one or two topics, make an analysis, for purposes of gaining confidence, of why you are qualified to speak on the topics. You will discover that your early education, your service school training, and your special war experience will add up to an impressive total. You may discover that you are better qualified in certain ways to talk about the subject you have chosen than anyone else in the community.

You will discover also, especially if you have been an instructor in a service school (and who has escaped instructing in the military service?), that your own background of instructing has provided a surprising amount of material both of the written kind on paper and of the unwritten kind in the recesses of your mind.

The best advice that can be given to those searching for subjects to speak on is: Don't choose a subject too difficult for the occasion. This of course is always related to the time factor. In 30 minutes, which is a reasonable length of time for an invitational speech, you will be

able to cover perhaps two or at the most three main ideas all related to the central idea. Thirty minutes time will enable you to say about 3,500 to 4,000 words. If you have 30 minutes assigned to you, you will do well to use only 25 for speaking and to allow 5 for a question and answer period.

What are the rules for choosing a subject? There are three that always apply. 1. Choose a subject that is appropriate for the occasion. 2. Choose one that is appropriate for the particular audience. 3. Choose one appropriate for the speaker—that is, one on which you are thoroughly competent to speak.

If you intend to leave any lasting impression with the audience, you will steer clear of abstract and theoretical subjects. You will avoid highly controversial subjects unless you are especially qualified in some way. You will choose a subject that can be narrowed down to a single central idea and then amply developed by use of good examples and illustrations so as to *inform* and if necessary to *persuade* the audience.

### Getting Speech Materials

Once you have selected a suitable subject, you will want to survey the materials you can use to build the speech. First, prepare a general tentative outline of a speech listing the major subtopics under the main subject. Jot down each of these subtopics on a 4 x 6 card and note thereon the items you already know about that subtopic. Either on the same or a separate card, list those items on which you need to do some more research. Jot down the titles of articles, pamphlets, and books that you think will apply. These notes will include statistics, quotations from authorities, and such exact references as dates, costs, and time factors.

After you have assembled a reasonable amount of material, start discussing the talk with a friend. Tell him in a general

way how you plan to develop your subject. Let him ask you questions. By trying to answer them, you will find out what more you need to know.

The next phase should consist of a more detailed search for material to heighten the effectiveness of your talk. You will find helpful suggestions in service journals, in popular magazines, and in the special publications of the Departments of the Army, the Navy, and the Air Force.

Keep your subject material recent and fresh. Consult the *Readers Guide to Periodical Literature* in your library for references to the popular magazines. Use the indexes of publications in your office library for recent developments. This is necessary because you will soon discover there is always at least one person in an audience who has read a recent article on your subject and who will want to know what you think of it.

After you have assembled your notes, give them the stamp of the originality of your mind. Recast the material into the general plan you have drawn up for your talk. Use only the most pertinent parts. Set aside what does not apply.

Revise your tentative outline to bring it within the limit of the time allowed and to adapt it to the kind of audience for which you plan to talk. Keep the additional notes, because you are sure to want to use some of them in revisions of your talk when you use it with a different audience or for a different purpose.

Now make an estimate of the time it will take for you to speak aloud what you have selected. You will probably find that a further process of discarding material will be necessary.

#### Ways of Arranging Ideas

Speakers use various ways to present the main ideas. In most speeches, there is a predominant kind of over-all order. It may, for example, consist of a list

of particulars leading up to a certain conclusion or the reverse of this process. It may be a casual order—that is, a list of known causes leading up to the ultimate effect or, again, the reverse. It may be the familiar to unfamiliar order, or the simple to complex order, or the problem and the solution order. In the case of argumentative speeches, the order of climax often prevails—that is, the giving of the most powerful reason or the most pertinent event last.

Simple talks are often based upon time order, that is a chronology of leading events; or space order, that is a listing of what was done by relation to space. For example, in discussing the American drive across the Rhine in World War II, it might be desirable to discuss the objectives and locations of each army just before the crossing.

#### Getting Good Support

Before attempting to erect the superstructure of a speech, you should get clear again in your own mind what you are trying to accomplish in the speech. Your problem then becomes one of seeking the best possible material to lend clarity or credibility to your speech.

In general, speeches are supported best by examples—historical or hypothetical; by comparison and contrast, by restatement and summary, and by definition.

It is especially desirable at the beginning to tell the mission or purpose of your talk. Nothing focuses the attention of a group as effectively as does an explanation of where, mentally speaking, they are going. You will also want to define—to make clear the meaning of your terms. You may do this by referring to the etymology of the word, by giving a synonym, by showing its relation in the context, by clarifying, or by giving an illustration.

Speeches full of generalities are generally dull. You will liven up your speech

by using specific factual information. But avoid the use of too many concentrated facts. Don't try to speak like an encyclopedia.

When you have a number of specific details to get over, it is best to make use of visual aids. You can do this by using large charts, slides, or simply by using the blackboard.

Don't attempt to carry in your head a complicated arrangement of statistics. Put them on the blackboard or on a mimeographed sheet and refer to them only when necessary.

In general, you should avoid too many technical terms. Keep your sentences short—less than 20 words. Avoid sentences in the passive voice. Keep your ideas marching in progressive order to a clearly defined objective—the one you announced at the beginning of your talk.

One final word of caution—always examine your supporting material for clarity. If you succeed only in confusing your audience, you have lost your goal and probably lost some friends.

The wise speaker pauses while speaking from time to time to determine by searching faces if his hearers understand him up to that point.

#### Making Plans and Outlines

Every speech, regardless of its length, whether it takes 5 minutes or 60, should have three essential elements—an introduction, a middle part or discussion, and a conclusion. The introduction should generally contain some kind of a step designed to create in the audience curiosity for your subject. It may also contain a statement of your specific purpose and the central idea which you intend to put across.

✓ The middle part or discussion of the speech will require perhaps four-fifths or more of your total time. It should contain two or three main ideas, each designed to support your announced cen-

tral idea. It should contain just enough support to make each main idea acceptable to the audience.

Your conclusion may take the form of a brief summary, or a restatement of your opening words, or a detailed illustration designed to summarize. If your speech is persuasive in nature, you may wish to add a plea or a plan for action.

It is possible to reduce most talks of 20 to 30 minutes length to an outline of two typewritten pages. More experienced speakers can make talks with even briefer outlines.

#### Rehearsing and Conversational Quality

Once you are satisfied with your speech outline, start rehearsing it aloud. Time yourself. Ask a couple of friends to listen to you. Start talking to them as if they constituted your real audience. Look them directly in the eyes. With your outline before you, try to relive and vivify the ideas the paper suggests. Think of yourself as communicating—that is, taking part—in a two-way process, with you speaking and your hearers understanding and agreeing with you. Be sincere, lively, and animated. Try to develop in your mind a full realization of the meaning of your words as you speak them.

After you have rehearsed once, look at the outline and then rehearse again, giving the ideas in perhaps a little different order. Say the speech three or four different ways until you feel certain that you have all essentials thoroughly in mind.

If you have access to a wire or tape recorder, make a recording of your talk. Play it back and listen critically. If revision is in order, rework your outline and start rehearsals over. Do not give up until you are thoroughly satisfied that the talk is in the best shape in which you can possibly present it.

### Points to Remember During Delivery

1. A reasonable amount of "showmanship" is ordinarily a good way of securing and maintaining interest. But don't try to substitute tricks or wisecracks for solid preparation and genuine knowledge of a subject.

2. Try to gain the good will of your audience early—by allusion to the group, the occasion, the honor of being invited, or your real pleasure in speaking. Don't prolong pleasantries and don't fake "common ground" connections. Attention is gained in the first few minutes. If not then, a speaker may never really get his audience with him. Impressions of like and dislike develop early and usually set firm.

3. Talk to all parts of the audience including those in the back row. Refer to persons present by name occasionally. Change your position on the platform so that all persons present can get a good look at you—especially your facial expression. Make a very special effort to observe the expressions on the faces of your audience. They are the best evidence of whether or not your ideas are being understood. As mentioned earlier, deliberate pauses during which you can make such observations are both necessary and helpful.

4. Never read a speech if it can be avoided. If you use notes, do not keep your nose fixed on them. Look up as often as possible. Avoid reading long quotations.

5. Never talk down to your audience. As you gain experience, you will learn that there are usually present in most audiences persons who know far more about a specialized phase of your subject than you do.

6. Above all, keep to your agreed time limit. If you are asked to speak for 20 minutes, stop at 19. You may leave the audience wishing you had spoken longer. This feeling seldom develops when a speaker runs over his time.

### Answering Questions

One of the surest signs of a good speech is the response it gets from an audience. If you are lucky enough to have a half dozen persons wanting to question you the moment you sit down, you should know that you have kept alive and awake at least that number of persons during your talk. Actually, such evidence of interest usually means that the whole audience has listened attentively. Sensible speakers will not misuse the question-asking period by launching forth into a series of new speeches. You should make brief remarks genuinely trying to answer the question raised. If you do not know the answer to a question, be honest and admit it, or better still say that you will try to find out the answer and let the person know. In general, you should answer questions in a courteous way. Sarcasm and flippancy are seldom desirable. Likewise, it is unfair to answer a question by the Scotch device of asking the questioner another. This practice usually backfires on the speaker.

### Evaluating Your Speech

Once your talk is over, don't file away your outline and forget about the presentation. Try to make a careful appraisal of what you accomplished and what you failed to accomplish. Ask yourself these questions: Did I get my ideas over? Did I really achieve the specific purpose I announced at the start? Did my main ideas support the central idea? Were my introduction and conclusion satisfactory? Did I do a good job of answering the questions that were put to me? If you can make favorable answers to questions like these, you stand a good chance of being invited to make an appearance before the same group again. If you failed in any number of these respects, you can write off the experience to your inability or ineptitude—and by all means make plans to do better the next time.



### Revising and Replanning

Speakers will do well to replan, to revise and bring up to date, and to rehearse again their "stock" speeches. This process involves further search for materials, reading, conversing, reflecting, and reorganizing. You may improve, for example, by reference to a timely topic of the morning newspaper. You may make reference to an announcement by an important official over the radio. Or, you may allude to a recent article or book. You can often improve the introduction of a talk by showing the relation of your subject to some of the persistent, ever-present questions in public discussion. These include such problems as the economic condition of our country, the prospect of war, the meaning of new inventions, civil rights and minorities, the significance of recent educational changes, and similar broad topics.

### Improve Your Speaking and Advance Your Career

Speech making is distinctly an art. It cannot be reduced to rigid rules. Many persons succeed in making creditable speeches even though their pronunciation is bad, their grammar is atrocious, and their organization of material is far from clear. They make good speeches often-times by their personalities. They are friendly, forthright, and convincing, and they know the advantage of using humor.

It is impossible to reduce to the limits of one article all the essentials of first-class speech making. These may be found in good textbooks. Good courses in speaking are available in most large cities at university extension centers. An ambitious officer can often make up for much lost time during a single 3 or 4 months' course. Ambitious speakers will make use of these helps but, better still, they will cultivate actual speaking opportunities, building upon each one so as to give a better presentation the next time.

Military men have a vital obligation to the service, to their country, and to themselves to learn to speak well. Knowledge of speaking techniques is important, but it is not all. The best qualified speaker is the man of good character with superior qualifications to discuss his particular subject. The skills of good delivery may be developed with training and experience.

If you are anxious to improve your speaking ability, make yourself an authority on one or two timely subjects. Start a topical card file now. Develop suitable outlines. Discuss the subjects with your friends. Get yourself ready, and finally, don't sidestep the invitation to speak when it reaches you. Prepare and produce. The kind of a presentation an officer has made at a critique or a briefing has more than once been an upward turning point in his career. Don't miss your opportunity.

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The military chief must possess knowledge and character. Knowledge has become increasingly important to the military leader over the span of years. Military knowledge is mainly a matter of both military and general culture.

*General L. M. Chassin, France*

# Where Is the Enemy?

Lieutenant Colonel W. J. Nichols, *Cavalry*  
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**M**Y BATTALION, the 745th Tank Battalion, had been attached to the 1st Infantry Division for the landings in Normandy. It had remained as an integral part of the infantry-tank teams of the Fighting First throughout the campaigns in Europe. Thus it was that the companies of the Battalion found themselves as permanent fixtures in the regimental columns of the 1st Division streaming to the east towards Germany late in August 1944.

On 2 September 1944, the division was ordered to turn north, follow the 3d Armored Division, and protect the west (left) flank of VII Corps. The regimental columns advanced rapidly all day with only minor contacts with small groups of a retreating enemy. Nevertheless, the troops were very tired when night fell and the columns finally pulled off the road for a few hours of much needed rest. The major portion of my Battalion and my headquarters had been attached to the 16th Infantry. So the night of 2 September found us assembled with that Regiment near the small village of Le Nouvion, France.

It was very early, 0130 to be exact, on the following morning that I was awakened and informed that a report had come in that one of my tank platoons, attached to the 26th Infantry, had been ordered to

move with the 1st Battalion of that Regiment to reinforce the 3d Armored Division. The report also stated that the 3d Armored Division was in the vicinity of Mons, Belgium.

Just prior to daylight, I reported to the command post of the 16th Infantry in Le Nouvion to receive orders for the continuation of the move northward towards the city of Mons. While at the CP, I learned that an enemy column had cut off the command post of the 3d Armored Division from its combat commands.

Shortly after daybreak, the regimental column moved out and headed north. The tanks had taken their place at the head of the column, with their usual load of riflemen covering every inch of their decks. After watching the tanks move out in an orderly fashion, I climbed into my jeep and moved up to the head of the column. I listened occasionally to the sporadic reports that came in over the radio and noted casually that the "doughboys" appeared comfortable in their positions on the tank decks. Those warm decks were probably being appreciated, for a change, this early fall morning.

The column moved steadily on, the sun rose higher, and the tank decks appeared to be less appreciated. The countryside

**A modern commander needs sharp powers of detection. He can acquire them by careful study of the enemy, by skilled evaluation and interpretation of information, and by developing his own ability to observe**

was unusually peaceful and quiet. It appeared that everything was well under control, so I decided to move on ahead of the column to the town of Maubeuge and perhaps contact the tank platoon which had moved out earlier that morning.

The column was some distance behind when I finally caught sight of the town of Maubeuge. The peal of a lone church bell from another distant village faintly reached my ears and it suddenly dawned upon me that today was Sunday. It never occurred to me, however, that in such a large and religious community as this other bells should also be ringing at that particular time on a Sunday morning. As I moved into and through the town, I failed to note that there was very little civilian activity, even for Sunday morning, and not a soul was going to church.

I motioned my driver to stop when we had reached a pleasant little park near the far side of town. It was the main intersection of routes leading north to Mons and east to Namur. I settled comfortably in my seat and casually observed a lone family hurrying westward along the highway. They studiously avoided my jeep, and the usual warm greeting was missing. Not even a glance was cast in our direction. My driver appeared ill at ease and shifted uneasily in his seat. The neat house across the intersection was undoubtedly that of a doctor, for his sign was posted conspicuously on the brick front. The fact that the doors and windows were all covered by hastily improvised barriers made no impression. The usual farm animals were nowhere apparent. Not even a stray dog was in sight. The whispering of the leaves in the ancient park was the only apparent noise, and this would hardly cause a disturbance to one so content with the world.

I had been in this condition of reverie for perhaps 15 minutes when I noted the furtive movements of a figure apparently coming toward me through the trees of the

park. Assuming casual interest, I soon perceived that the figure was a man wearing an arm band of some sort and that he undoubtedly wanted to talk to me. Upon reaching the side of the jeep, this gentleman explained in broken English that he was a member of the FFI and that he wanted to report that there were 30,000 Nazis just outside the town, in the Bois de la Lanierre.

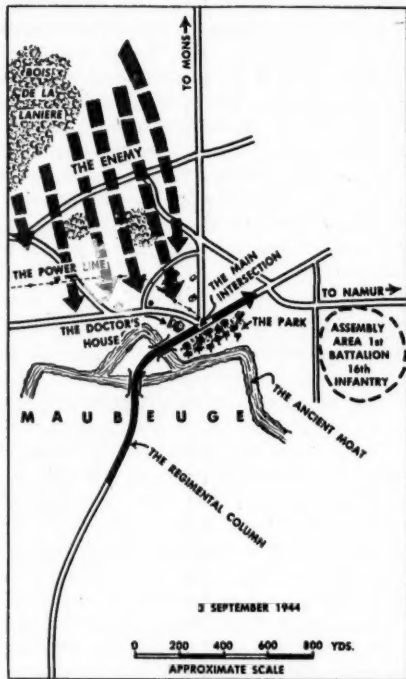
This somewhat startling remark caused me to examine the man closely, to smile patronizingly, and to thank him kindly. I returned to more pleasant thoughts. The man moved away to take up an alert position beside a large tree with the attitude of a spectator about to watch a very interesting phenomenon. After several minutes, having noted that I neither used my radio nor had taken off in a cloud of dust, he returned to make the same statement, this time more emphatically, and to state also that a long Nazi armored column had cleared this point, heading east, not over 2 hours before.

By this time, I was somewhat annoyed by such a "crackpot." I thanked him in a brusque manner and told my driver to turn around and stop on the other side of the intersection and thus avoid further annoyance. I also would be in a better position to look back along the route of approach of the regimental column. In turning around in the intersection, I could not help noticing the many freshly chipped bricks of the pavement. I knew these marks could only have been made by the steel tracks of a considerable number of Nazi tanks.

By the time the jeep stopped in front of the doctor's boarded up house, I had definitely cast aside my reverie. Glancing to where I had left the FFI, I noted that this individual was still there and still maintained his alert attitude. I climbed out of my jeep with the express purpose of discussing this subject of 30,000 Nazis just outside the town.

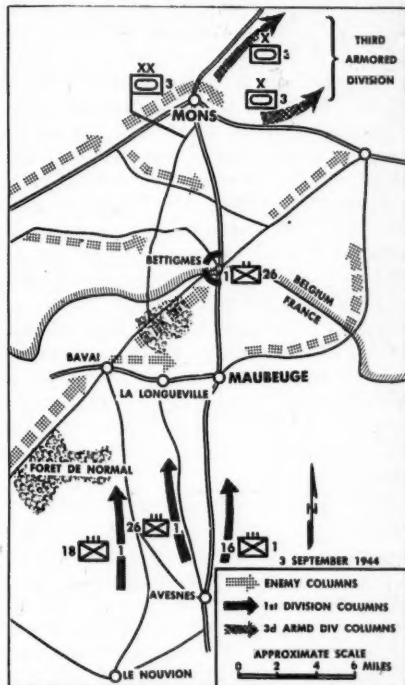
However, at this point, the regimental I&R Platoon came into sight down the road. With it was the regimental commander who drove at once up to where I was standing, stopped, and inquired as to any unusual circumstances in the town. I pointed to the FFI and informed the regimental commander of the reported 30,000 Nazis. I also told him of the Nazi armored column and the tank tracks I had observed

towards their designated assembly area, the assistant division commander drove up and joined us in front of the doctor's house. He immediately informed the regimental commander that the 1st Battalion of the 26th Infantry, which had been sent to join the 3d Armored Division, had been unable to do so and was heavily engaged about 8 miles north of Maubeuge. He said it was imperative that the entire division



on the road. I suggested that perhaps it might be well to assemble the tanks with the leading battalion east of the road intersection just in case there was some foundation in the FFI's report. The regimental commander accepted the suggestion and immediately sent a message to that effect to the 1st Battalion.

As the tanks and the 1st Battalion reached the intersection and were moving



move rapidly towards Mons. This brought out once more the FFI's report of a possible 30,000 Nazis in the Bois de la Lanierie just outside the town. The general suggested it might be well to take a look in that direction.

The doctor's house being a three-story affair and the closest point which afforded any observation to the north, the general, the regimental commander, and I broke in

the front door with some difficulty and climbed the stairs to the top floor. We politely allowed the general to take the first look from the one window that faced the north. He had hardly raised his glasses to the level of his chin when he dropped them with an exclamation. The regimental commander and I immediately crowded to the window. Not over 500 yards from where we were standing, the open fields and orchards were filled with enemy infantry, deployed as skirmishers and advancing directly on the town.

Our climb up the stairs had been fairly casual. The descent was extremely rapid. Hasty plans were made, in the doubtful security of an ancient moat, to meet this threat to the town and the regimental column. Orders were issued for the tanks and the 1st Battalion, which had assembled east of the road intersection, to attack. Meanwhile, the enemy had opened fire with small arms, and the volume of fire was increasing rapidly. This seemed not to disturb parts of the regimental column which consisted at this time of artillery with a good sprinkling of anti-aircraft vehicles. The vehicles continued to roll rapidly by at considerably extended interval.

There was, however, one gunner of a multiple .50 caliber anti-aircraft weapon who was alert. He had been standing in the rear of his halftrack hanging on to the pistol grip of his weapon with his left hand enjoying the ride merely by absorbing the jolts of the vehicle by standing on his toes and flexing his knees. He suddenly caught sight of the approaching enemy out of the corner of his eye. The picture of this mass of enemy infantry not 300 yards away caused only the momentary dropping of his jaw. He swung his weapon in a short arc and pressed the triggers. He literally sprayed the landscape with his mixture of ball and tracer ammunition. He hit a power line which ran through the area and the wires

snapped, crackled, and coiled where the enemy was thickest. It is doubtful that an anti-aircraft gunner ever had a more remunerative target or caused so much consternation in such a short period. Needless to say, this one action delayed the enemy long enough to allow the 1st Battalion to launch its attack and the other elements of the Regiment to assemble. It turned out to be a field day for the light tanks of the Battalion.

During this phase of the drama which passed before my eyes, I had been extremely busy with my radio and with directing the installation of a machine gun at the edge of the ancient moat. Once, in glancing to my right, I noticed the FFI person comfortably ensconced behind a large tree. He was grinning happily, and well he might, for the show he had been waiting for was certainly more than satisfactory.

#### After Action

The following is an extract from *Selected Intelligence Reports, First Infantry Division*:

"On 2 September, an estimated 120,000 enemy remained south of the Belgian border . . . there was one over-all purpose evident in the enemy's strategy: to pull out every possible man in the direction of the Siegfried Line to the east. The plan was already well underway when the enemy columns streaming east collided violently with the Americans driving north."

The term "collided violently" is the one I wish to point out specifically, but let me give you a brief description of the related events consolidated from the after action report of the 1st Division.

Toward the end of August 1944, the VII Corps was well across the Seine and was moving rapidly eastward in pursuit of a fast withdrawing enemy. Late on the afternoon of 30 August, VII Corps changed the direction of its advance and ordered its divisions to drive north across the Belgian border towards the old city of Mons.



The 3d Armored Division turned north the morning of 2 September and became the spearhead of the Corps drive. The 1st and 9th Infantry Divisions jockeyed for their designated positions and advanced to the north behind the 3d Armored Division, with the 1st Division on the left and the 9th on the right.

By nightfall of 2 September, the 1st Infantry Division had reached the town of Avesnes. Reports received by the Division from VII Corps indicated that the combat commands of the 3d Armored Division had advanced beyond the city of Mons. Sometime prior to midnight, word was received that an enemy column moving to the east through Mons had cut off the 3d Armored Division command post from its combat commands. The 1st Division was ordered to send, at once, an infantry battalion to be attached as a reserve to the 3d Armored Division.

At 0115 on 3 September, the 1st Battalion, 26th Infantry, at Avesnes, moved north along the road to Maubeuge and Mons to join the 3d Armored Division. It was discovered later that this Battalion had just missed an encounter with a powerful German armored column streaming to the east through Maubeuge. North of Maubeuge, the Battalion ran into a strong German column moving east through Bettignes. The Battalion found itself in a very fluid situation, became heavily engaged with the enemy, and that night buttoned up in a perimeter defense near the crossroads at Bettignes.

Meanwhile, the first daylight of 2 September found the three regiments of the 1st Division advancing north in three columns, the 16th Infantry on the right, the 26th in the center and the 18th on the left. Upon reaching a line generally paralleling the highway through Bavai, La Longueville, and Maubeuge, each regiment ran almost simultaneously and very abruptly into considerable enemy resistance.

The 16th Infantry reached the town of Maubeuge at approximately the same instant a strong German force was advancing south to secure the town. The 26th encountered enemy resistance at La Longueville, and the 18th found the town of Bavai strongly held by an estimated German battalion. The existing enemy situation, which was uncovered only after the deployment of the battalions of the regiments, was fantastic. Battalions ordered to by-pass the already committed leading battalions encountered enemy columns on almost every road. Some of the enemy had either bivouacked or sought shelter from our tactical air in the extensive wooded areas and were in positions to offer considerable resistance.

The German forces in the area, estimated at approximately 30,000, were at a definite disadvantage in spite of the fact that the encounter was unexpected by both sides. They had been hard pressed and retreating rapidly, continually harassed by our tactical air force. They had maintained only a semblance of organization, and their morale was very low.

The final result was that our forces cut the German columns to shreds and finally gathered in the totally disorganized units. It was not until 7 September that all reports could be correlated and a reasonably accurate total made of the number of prisoners taken. Approximately 5,000 prisoners were taken by the 3d Armored Division, and 17,149 prisoners passed through the cage of the 1st Division. Additional thousands were killed by both divisions.

#### Commentary

When I recall these events I wonder what might have happened if this had not been a pursuit, and if the enemy had been better organized. Suppose that an event similar to this should occur in a future war where airborne armies are dropped in a generally known area (south of the Belgian border) and the situation is just as

fluid. Here were some 30,000 enemy in an area not over 10 miles in width, and no one knew they were there. An armored division had passed through the area. A reinforced infantry battalion had proceeded almost half way through before they were suddenly and heavily engaged. And finally, an infantry division "violently collided" with the enemy. All the units had their usual reconnaissance agencies and employed them in the normal manner. Last, but not least, aerial reconnaissance, as well as tactical air, was plentiful. The enemy was supposedly disorganized and in full retreat, and still they were not discovered. Suppose they had been well organized and efficiently employed. Could they have been discovered more easily? Granted, there were some extenuating circumstances and some individuals were not as alert as they should have been. Will commanders be more alert in the next war, either in what we know as normal operations or in fluid situations such as this?

The incident which I related in the first part of the article was definitely not presented to hold myself up to ridicule. If I were not sure that many battalion commanders had not made similar mistakes and were at times not too alert, I would have omitted certain particulars. However, I tell them here in an attempt to emphasize another point which relates to the problem of locating the enemy.

Let us get down to the level of the combat battalion. This is the level at which the trees, as well as the forest, must be seen. This is the level at which the question, "*Where is the enemy?*", is most important. The questions of what the enemy is doing and what are his capabilities lose much of their importance once the battalion has started an attack or, for that matter, once the enemy has started one of his own. The main object in mind is finding something to shoot at; or, in better words, to close with the enemy and destroy him.

According to all our principles of combat operations, our developed techniques for securing information, and our method of producing intelligence, it should not be too difficult to obtain the answer to this important question. Aerial reconnaissance, ground reconnaissance, various and sundry agencies, shell reports, and electronic devices provide us the means for learning the whereabouts of the enemy. It sounds simple and effective. However, a reading between the lines of after action reports, or better, a down-to-earth discussion with former battalion commanders, will soon bring to light the fact that in too few cases was the exact location of the enemy determined prior to the time actual contact was made. Most of these cases occurred during the early phases of a campaign and during open warfare or fluid situations.

The circumstances involved in the Mons Pocket, as I have described them here, were unusual inasmuch as not only the battalions, but also regiments and divisions, did not know the exact location of the enemy. Usually, our intelligence procedures are entirely adequate and sufficient for their purposes at or above the regimental headquarters. Let us consider briefly how intelligence at these higher levels functions in the "normal" course of events.

Higher commanders make their decisions based upon estimates of the enemy's capabilities, rather than upon estimates of the enemy's intentions. This is done because, among other reasons, enemy intentions can seldom be determined until it is too late to either plan or conduct an operation. Such is our "doctrine of capabilities." It is a sound doctrine and no criticism is contemplated here.

In applying this doctrine, the intelligence officer collects information of the enemy and determines the capabilities or those courses of action the enemy is most likely to adopt. He presents his findings

to the commander in the form of an estimate.

In analyzing the situation, the commander considers all the courses of action which are open to the enemy. However, in making his decision, he must base his proposed operation on that course of action he believes the enemy will adopt. From this decision, plans are made and orders are issued. The combat battalions, in an attack, cross a line of departure and for all intents and purposes are committed to action.

Intelligence of the enemy may be obtained later which differs from that used in the decision and in planning the details for the operation. Up to the point of the actual commitment of the battalions, this intelligence can occasionally be used to change the plan of attack. However, in the usual case, last minute changes are few.

Now, if the enemy course of action used as the basis for the decision is the one adopted, and in the manner pictured by our plan, our attack is successful. However, in a good majority of the cases, and particularly in fluid situations, the course of action the enemy adopts, or his actual location, differs in varying degrees.

Just when and how is the actual course of action or the enemy's actual location discovered? In most cases, it is determined only after it is too late to take full advantage of the intelligence. Contact with the enemy in these cases is sudden and unexpected. Many battle-tested and experienced battalion commanders take such conditions in their stride. They seem to have developed a sixth sense and can determine where the enemy is and what he is doing without the aid of the usual intelligence channels. One hears such remarks as, "He can smell the enemy a mile away." These battalion commanders determine the true course of action in time to direct their forces in such a manner as to avert disaster if not to gain a successful

conclusion. These cases are far too few even in the later periods of a campaign.

Inexperienced commanders, of which there will be many in the early phases of a campaign, will of necessity have to determine the enemy's true course of action, or better, his actual location. They will most likely have to do this in their first engagement. Combat intelligence at this period will likely be insufficient. Many of these commanders will imagine an enemy "behind every bush" once they have crossed the line of departure. Others will not perceive a thing until they have bulled their way into the area of the enemy. Actually, a little thought and considerable training will tend to correct this weakness and to raise the percentage of actual successes in battle.

Battle-tested and experienced commanders did not have a sixth sense or any other mystic power. One might say that they had just plain, everyday, common sense, and used it. This, in part, is probably true. But how many commanders appear to have common sense and, further, use it during the confusion of combat? It is difficult for some commanders to acquire the ability of detecting the enemy even after considerable combat experience. Our mode of living during the past few centuries has had the tendency of dulling the senses required in the use of this once fairly common human accomplishment. To make it more difficult, there are the many and diverse complications of modern warfare which differ considerably from the days of the Indian campaigns. Nevertheless, these powers of detection can be sharpened and shaped to the pattern of modern war.

The first and most necessary step is the acquisition of considerable knowledge of men and military tactics. Much of this background may be attained by analyzing the situations involved in historical accounts of the past War and by the study of enemy tactics prior to combat.

The second step, and the most difficult one, is the development of a mental process very similar to the processes employed by the intelligence officer. It differs in that it is entirely mental. It is, or should be, almost instantaneous. The intelligence officer determines his indications from the essential elements of information (EEI) and assigns missions to agencies which can best obtain the information. This procedure must be taken over and followed in a similar manner by the commander in his mental process. However, indications which fit the particular situations were determined and partially analyzed beforehand. They are part of the background knowledge of an individual. The indications which might apply to a particular situation cannot be personally and actively sought by the commander in the field, but he is alert for them and as one becomes apparent he immediately recognizes it as such. In some cases, an indication is indefinite, and the commander must investigate it further. In this case, he will check himself or assign a collection mission to one who can accomplish it at once.

The intelligence officer evaluates and interprets information as he receives it. The commander also performs this function as he receives timely information. However, in the case where an indication

becomes apparent, he needs only to interpret it in relation to what he already knows of the situation, for it has already been evaluated. During this process, he is making a continuous mental estimate of the situation.

The third and last step is one that has been discussed many times and needs no further clarification. It is that of developing one's power of observation. It is most important. Again, due to the conditions of modern urban living, this faculty lies dormant in too many people. It can and must be practiced by anyone who hopes to achieve success on the battlefield. However, if one is only able to perceive a condition and is not able to determine its meaning, this step can lose its importance. It would be like an intelligence officer who is able to gather information but is unable to produce the required intelligence from it.

These three steps might be called a system for developing common sense. They are procedures which form the foundation for our basic concept of combat intelligence. They must be developed and practiced continually by future battalion commanders. They are the backbone for developing confidence and the stimulus to aggressive action.

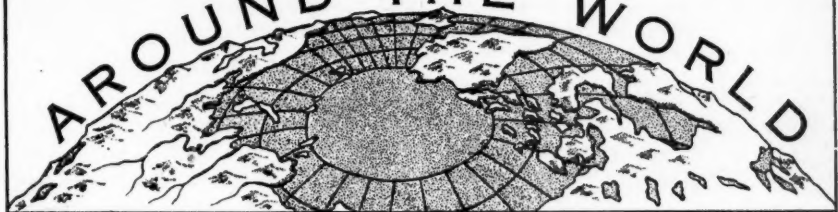
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A great part of the information obtained in war is contradictory, a still greater part is false, and by far the greatest part is of a doubtful character.

*Clausewitz*

# MILITARY NOTES

## AROUND THE WORLD



### UNITED STATES

#### **Coastal Mining**

The Army has relinquished one of its functions to the Navy—that of developing and planting controlled submarine mines in the nation's harbors.

Announcement of this decision by the Defense Department was made recently by Army Field Forces Headquarters. The switch in responsibility was effective 30 November 1949.

The Army turned over to the Navy real estate and other property needed to carry on this activity, except for the submarine mine building at Fort Monroe, Va.

The Army has operated the submarine mine depot there, a facility charged with mine manufacturing, and the controlled (submarine) mine school at the Seacoast Branch of the Artillery School, Fort Winfield Scott, San Francisco. Instruction now given at the Seacoast School will be integrated into naval schools already established.

The mine depot and the Navy Bureau of Ordnance have co-operated in the development and manufacture of underwater ordnance since 1938. The submarine mine depot at Fort Monroe was originally established as the torpedo depot at Fort Totten, New York, in 1902. It was moved to Fort Monroe on 11 February 1931.—*The New York Times.*

#### **Military Attaches**

The Department of Defense announced recently that adjustments, which will result in a reduction in authorized strength of approximately 30 percent, are now in process within its Army, Naval, and Air attache systems in foreign countries. These adjustments are being carried out as part of the Department's over-all economy measures and have been based upon carefully considered plans formulated by the Joint Chiefs of Staff with the consent and concurrence of the Departments of Army, Navy, and Air Force.

Under these plans, the ranking officer stationed in each foreign capital, regardless of his service, has been designated Senior Military Attache to represent the Department of Defense. In those countries where more than one service attache remains, the Army representative, formerly called "Military Attache," will now be titled "Army Attache," with Air Attaches and Naval Attaches retaining their present titles. The Senior Military Attache will represent the Army, Navy, and Air Force whenever attaches from the other services are not present, thereby enabling savings in attache personnel and equipment and bettering efficiency in the performance of service.—Department of Defense.



### Assault Transport

This model of the new Northrop *Raider* C-125 military assault transport can be loaded with 5 tons of cargo in a few minutes. It has been designed to operate from small, unsurfaced airstrips by virtue



of its double-slotted flaps, heavy-duty, fixed landing gear, and three engines. Twenty-three of these planes are being built for the Air Force for use in Arctic rescue work.—Department of Defense photo.

### Synthetic Quartz

Clear, sparkling crystals of real quartz, identical in every way to those produced only by the processes of nature, are now being grown inside bomb-like steel test tubes by a group of scientists at Bell Telephone Laboratories.

The material from which the quartz crystals are grown is a finely powdered form of silica. This is placed in the bottom of the steel bomb and an aqueous alkaline solution is added. The seed plate, a thin wafer of quartz, is suspended at the top of the bomb; the bomb is then sealed and placed in a furnace.

Under pressure exceeding 15,000 pounds per square inch and at temperatures of about 750°F., the silica dissolves. In its dissolved state, it rises to the cooler part of the bomb and is deposited on the seed plate, molecule upon molecule, until all of it is in the form of a single clear crystal.—*Ordinance*.

### Standardization

Tripartite arrangements for collaboration in military standardization among the Armed Forces of the United States, United Kingdom, and Canada were announced recently in London, Ottawa, and Washington.

These arrangements will insure that in time of necessity there will be no material or technical obstacles to full cooperation among the Armed Forces concerned, and the greatest possible economy in the use of combined resources and effort will be obtained.

These arrangements are decentralized to the working level agencies of the Armed Forces of the three nations for study in the various fields of military equipment and operational procedures.

The studies, which are carried on by exchange of observers among the three nations in connection with exercises and the development and testing of matériel of common interest, aim at the gradual development of common designs and standards in arms, equipment, and training methods.

Co-operative arrangements for this purpose do not impair the control of any country concerned over any activities in its territory. No treaty, executive agreement, or contractual obligation has been entered into by the participating nations.

These arrangements between Canada, the United Kingdom, and the United States, which have been under discussion since 1947, are a step towards the fulfillment of the wider arrangements under the North Atlantic Treaty Military Production and Supply Board which call for the promotion of standardization of parts and end products of military equipment in the North Atlantic area. They are similar to arrangements already made by the Brussels Treaty powers, Great Britain, France, Belgium, The Netherlands, and Luxembourg.—Department of Defense.

## Ordnance Developments



The US Army's Ordnance Department is presently experimenting with many different types of weapons. Shown above is an 8-inch gun with its new full-tracked carrier. The gun has a total weight of approximately 52,620 pounds. The cargo carrier weighs approximately 99,075 pounds when combat loaded.—Department of Defense photo.

### AAA Control System

A military contract representing the largest peacetime order in its history has been received by the Sperry Gyroscope Company from the US Army Ordnance Department. It calls for production in quantity of a new and highly complex anti-aircraft gunfire control system.

Placement of a production order for the anti-aircraft equipment is the outcome of an Army Ordnance-Sperry development which was initiated prior to the end of World War II. Pilot models of the system were produced by Sperry engineers.—Sperry Gyroscope Company.

### Portable Teletypewriter

Portable teletypewriter equipment so light that a parachutist can carry it on a jump from an airplane has been developed and adopted by the Army.

Weighting but 45 pounds, compared with current field equipment that weighs 225 pounds, the new portable teletypewriter is a fourth the size of the old, has 300 fewer parts, is waterproof, is consider-



Paratrooper jumping with a portable teletypewriter.—Department of Defense photo.

ably stronger and consequently requires far less maintenance. The new equipment can transmit and receive messages 66 per cent faster than existing types and will operate on both wire and radio circuits.

There are three components to a complete field unit: the teletypewriter, a power unit, and a case of accessories. The three together weigh 116 pounds.—Department of the Army.

### Combat X-Ray

Designed especially for use under strenuous military conditions anywhere in the world, two radically new, light-weight, "knock-down" X-ray machines were demonstrated for the first time recently at the National Naval Medical Center, Bethesda, Maryland.

Developed by engineers of the General Electric X-ray Corporation at Milwaukee, Wisconsin, to specifications supplied jointly by the Medical Research and Development Board and the National Bureau of Standards, the units later will undergo field testing under simulated combat conditions by US and Allied military forces.

The first demonstration was conducted at a symposium directed by the Surgeon General of the Navy and attended by senior medical and dental officers of the military forces.—*Army and Navy Journal*.

### Ultrasonic Cooking

Cooks in Army messes and Navy galleys may some day scramble breakfast eggs with heat from high-frequency sound waves generated by a quartz crystal.

In laboratory experiments, engineers of the General Electric Company, developers of the new generator, have found a variety of uses for the crystal-produced "ultrasonic" sounds which are pitched so high that they are inaudible to the human ear. Experimenters have used the sound waves to homogenize mercury and water, boil water, shatter glass, mix paint, and churn butter. As basic research continues, laboratory personnel expect to derive better industrial applications for ultrasonic power.

The high-frequency waves are initiated when electric voltage is applied to a quartz crystal about the size of a hockey puck. The crystal, submerged in oil for insulation purposes, then vibrates and starts the flow of ultrasonic waves.—*Armed Force*.

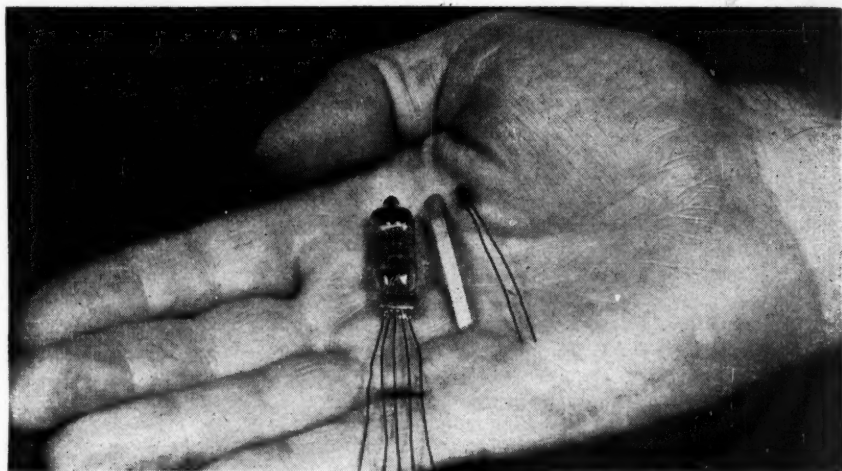
### Miniature Equipment

Small, light-weight Army Signal Corps equipment which can be easily carried by men and withstand extremes of climate is being designed to provide fast, effective communications networks for combat troops in the field, the Department of the Army announced recently.

A crystal rectifier reduced to the size of a match head, and a field switchboard that weighs but 22 pounds are among items developed through Signal Corps research projects. Both miniature and sub-mini-

ature for both wire and radio circuits. The new board takes up 0.4 of a cubic foot as compared with 2 cubic feet for the older type. Three switchboards, each with a capacity of 12 lines, can be connected to provide switching for 36 circuits.

During World War II, field wire used by the Army weighed 132 pounds a mile. Recent research has resulted in development of wire which weighs only 48 pounds per mile. Approximately 3,928,000 miles of field wire were produced for the Signal



The sub-miniature radio tube, left, and the crystal rectifier, right, shown in relation to a match, are examples of light weight signal equipment.—Department of Defense photo.

ture radio tubes have also been produced.

"Miniaturization" is the word used to describe the task of developing matériel which can be handled with greater facility and less personnel than similar equipment used during World War II. The new products will also provide added protection for soldiers working under combat conditions. In the past, Signal Corps troops have had to work with equipment which was both cumbersome and conspicuous.

The new field switchboard may be used

Corps between 7 December 1941 and VJ-day. The lighter wire has a talking range, when wet, of 12 miles, as compared with a 10-mile range of wire currently in use.

Miniaturization has led to many fields. As parts become smaller, they generate more heat, or at least more heat for a given area. As a result, the search for new heat-resistant materials is going forward along with a redesigning of components to provide better dissipation of heat.

—Department of Defense.

### **Radar Photography**

A newly perfected device that photographs objects and then reproduces them in great detail on a large projection screen only 4 seconds later, after complete processing of the film, was demonstrated recently.

Fabricated at the request of the United States Air Force, the high-speed camera-developer-projector was designed to facilitate the work of radar specialists. It may be used in a radar "fence" if one is thrown around North America.

At present, radar search screens are kept in constant view of radar technicians who manually reproduce on a board the aerial traffic in their individual sections of the radar screen.

The new device would photograph constantly the radar screen and project the pictures of the radar-viewed sky traffic on a 10-foot screen. The operator controlling Air Force flights would be able to sit back and watch the automatic projections.—*The New York Times*.

### **Ceramics in Jet Engines**

More dependable ram jet, pulse jet, turbo-jet, and rocket engines will result from investigations under way to develop ceramic coatings for high-temperature metals to protect them from the excessive heat in these devices used in high-speed planes, guided missiles, and rockets.

Preliminary tests have indicated that both tungsten and tantalum may be coated to protect against oxidation; however, the more complete tests have been made on molybdenum, a metal readily available in the United States. The coatings, which contain various combinations of such compounds as zirconium oxide, Florida kaolin, calcined kaolin and sodium nitrite, and methods of applications to the metal, are described in a recent report of the National Advisory Committee for Aeronautics.—*Science News Letter*.

### **Missile Tracker**

The Boeing Airplane Company of Seattle announced recently it had perfected a new electro-mechanical "brain" that can duplicate the flight of guided missiles without leaving the ground.

The delicate device, using electronic "building blocks" to chart the exact course of an imaginary pilotless rocket or bomb, will save thousands of dollars in time and material, the announcement said.

The machine is known as "Bemac," for "Boeing electro-mechanical analogue computer." Housed in an 11 x 24-foot room at Boeing's Seattle headquarters, it works this way:

The exact characteristics of a particular guided missile are "set" in the brain through use of analogous voltages and mechanical shaft positions. The sum of these is the missile in a mathematical sense, which will act just as the missile itself would.

Into the machine are then "fed" the known conditions such as the nature, strength, and direction of the propulsive force and significant atmospheric conditions.

The brain is then set to figuring out what will happen. A battery of electronic "building blocks" goes to work, faithfully simulating every motion of the missile. According to its makers, it records every waver, dip, and spiral in the missile's motion from the time it "leaves" the ground until it "lands." Even the imaginary landing spot is recorded.

The missile's path is shown by a series of dots which give a second-by-second picture of the flight path. These are recorded by a rapid-fire camera which gives a permanent record of the "flights."

The photographs are classified as confidential information, Boeing said.—*The New York Times*.



## USAF 'Front-Line' Aircraft



Shown here are some of the "front-line" aircraft of the US Air Force. The aircraft, from front to rear, left to right, are the North American F-86 (world speed holder at 670.981 mph), Lockheed F-80 *Shooting Star*, North American F-82 (night fighter), Republic F-84 *Thunderjet*, Northrop B-49 *Flying Wing*, Consolidated Vultee B-36, Boeing B-47 (flew non-stop from Washington State to Washington, D.C., in 3 hours 46 minutes), and the North American B-45.—Department of Defense photo.

### "Escape Capsule"

The US Navy's Bureau of Aeronautics is developing an "escape capsule" for use in high-speed aircraft. This streamlined unit, in which the pilot operates, is pressurized and heated. It can be instantly detached from the parent airframe in an emergency and descend by its own para-

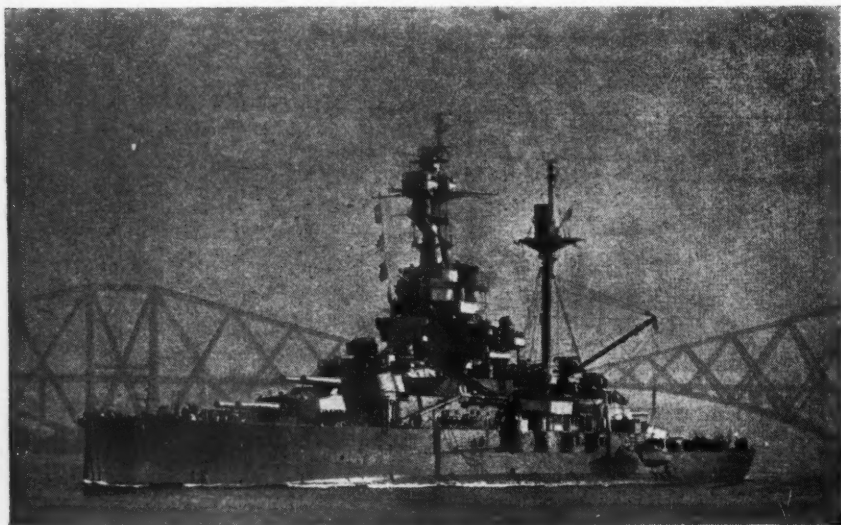
chute. If the capsule should land on the water, it is capable of staying afloat for some time. It is equipped with a full survival kit. Its use would prevent the pilot from striking the plane's tail surfaces in making his escape.—*The New York Times*.

## GREAT BRITAIN

### Battleship Returned

The British battleship *Royal Sovereign* was loaned to the Soviet Navy in 1944, together with three submarines and nine former US destroyers, which had been given to Great Britain in 1940. This

ship *Guilio Cesare*. A simultaneous exchange of this ship and the *Royal Sovereign* was arranged. *Guilio Cesare* sailed from Augusta for Valona for handing over to Russia on 2 February 1949, and the



The *Royal Sovereign* on the Firth of Forth, as it was being returned to Great Britain by the Soviet Navy.

loan was intended to supply Russia's needs in the War at a time when surrendered Italian ships could not be transferred. Under the Italian peace treaty, however, a number of Italian ships were allotted to Russia, including the 38-year-old battle-

*Royal Sovereign*, still bearing her Russian name *Archangelsk*, reached the Firth of Forth on 4 February.

The formal turnover took place on 9 February. The vessel is to be scrapped.—*The Illustrated London News*.

## HUNGARY

### Guided Missile Bases

Launching bases for guided missiles aimed at Yugoslavia were to be completed by the end of January 1950, in the Matra Mountains in Hungary, the clandestine monthly publication *Hungarian Communist* reported recently.

*Hungarian Communist* said construction of the bases was announced by the Hungar-

ian Defense Minister at a secret military conference of the Communist Information Bureau in November 1949.

The publication said the Cominform defense meeting was attended by Soviet Vice Premier Malenkov, Marshal Rokossovsky, Polish Defense Minister and other Cominform military men.—*The New York Times*.

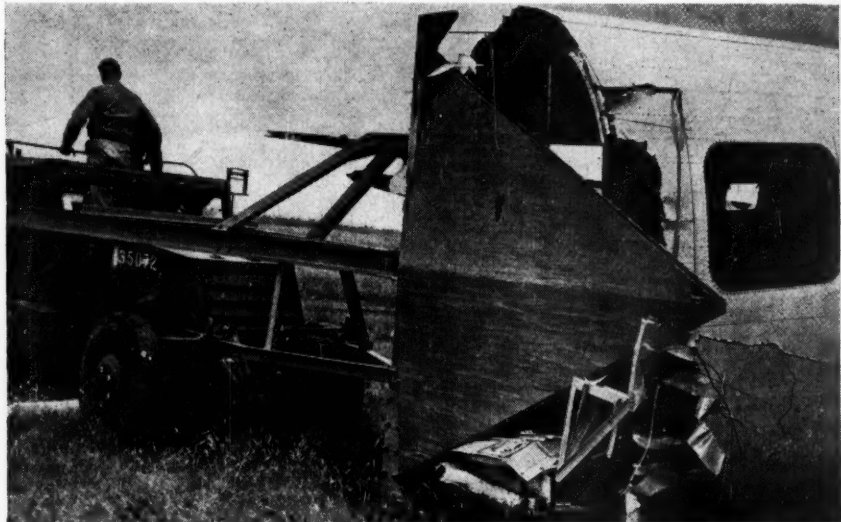
## AUSTRALIA

### Rescue Knife

The Melbourne Department of Works and Housing is experimenting with a device for freeing persons trapped in an aircraft wreck. The new development consists of a razor-edged steel spearhead

fuselage, which may or may not be on fire.

During a recent demonstration, the knife was driven forward at 12 miles per hour, and it pierced the metal of a surplus bomber as if it had been paper. The



Rescuing persons trapped in a wrecked aircraft is made easier through the use of the rescue knife shown above, which is designed to cut through the plane to provide an exit.

8 feet high, mounted on an armored car chassis with a four-wheel drive. It is designed for use on airfields when an accident has occurred and aircraft wreckage has to be cut through at great speed in order to free victims from a

moment the tail unit was severed from the main part of the fuselage, a steel hawser was thrown across the tail from a moving tractor and the two parts of the plane were drawn apart.—*The Sphere*, Great Britain.

## SWEDEN

### Smoke Screen

A new smoke-screen unit developed by the Swedish Defense Research Institute was recently tried out with great success at Karlskrona, Swedish naval base.

Operating on an oil of secret components, the smoke screen is non-noxious beyond a radius of 22 yards from the unit.—*Irish Defence Journal*, Ireland.

## NORWAY

### Small Arms

Norway will receive mostly small arms—tommy guns, machine guns, bazookas, and ammunition—under the North Atlantic Pact military aid program.

Army vehicles, radar equipment, equipment for submarines and for port defense, and some planes will also be supplied.—*The New York Times*.

## USSR

## Russian Heavy Tank



An example of the type of war matériel now being provided the Soviet Army is the heavy *Stalin* tank shown above. Technical data is not available, but a comparison with wartime tanks shows that much progress has been made in design and armament. Especially noteworthy is the sloping turret for reduced vulnerability.—*Zolnierz Polski*, Poland.

## PORTUGAL

## Meteorologists

The US Air Force's Air Weather Service of Headquarters, Military Air Transport Service, Andrews Air Force Base, Md., played host to two Portuguese meteorologists recently for a 10-day tour of several U.S. weather installations.

Professor H. Amorim Ferreira, Director of the Portuguese National Meteorological Service, and Lieutenant Colonel José Agostinho, Director of Meteorology in the Azores, were invited to the United States by the US Air Force and the Air Weather Service, as an expression of appreciation for the excellent co-operation given the Air Force during and since World War II by the meteorological services in the Azores and in Portugal.—Headquarters, Air Weather Service.

## EGYPT

## Stronger Army

The Egyptian Premier said recently that the new Wafdist government would build up the Egyptian Army, end martial law, and industrialize the country.

The Premier also announced that his government would demand "speedy evacuation" of British troops from the Suez Canal Zone and Anglo-Egyptian Sudan.

The Premier said that Parliament shortly would be asked to approve a bill lifting the martial law imposed during the War in Palestine. But according to the best available information, this will not necessarily mean the end of censorship.

Shortly after the opening of Parliament, the Wafdist government announced that police had been ordered to ban all demonstrations.—*The New York Times*.



# FOREIGN MILITARY DIGESTS

## The German Alerts—1939-1940

Translated and digested by the **MILITARY REVIEW** from an article  
by General Rivet in "Revue de Défense Nationale" (France) July 1949.

FROM October 1939 to 10 May 1940, the German Western Front was in a state of permanent alert. This is revealed in German war documents, and Hitler's generals, notably Halder and Jodl, confirm it. The confusion over Hitler's disordered decisions for this period of 8 months has now been cleared up.

Among the preliminaries for the offensive of 10 May, let us examine the alert of 10 January. The alert has been interpreted as an accidental event of grave consequences, the sudden revelation of an attack which had been set for that date for a long time. The usual version is as follows: Two German air officers, the bearers of an attack plan for the Western Front, accidentally landed in Belgium. The Belgians and the Allies thus learned that an offensive was imminent, while the frustrated Hitler halted on the threshold of his latest adventure. We now know that this interpretation, which bore all the evidence of probability, was inaccurate.

From 7 October 1939 on, the German attack could have been launched 11 different times, if 11 different decisions had been carried out. The failure to attack, however, was ascribed by Hitler to inclement weather. The adventure of the two German officers only served as a pretext to postpone the offensive which was or-

dered on the 10th to begin on 17 January. The incident, however, did serve as an excuse for a violent diatribe which Hitler leveled at his amazed generals on 20 January. Let us glance over this chapter of Hitler's decisions and attempt to determine just what were, in reality, the thoughts of the high command and the reactions of the subordinate echelons during this period.

### Prelude

By 17 September 1939, the Polish forces were beaten and dispersed, wandering through the southern zones of their country. In the east, the Russians were crossing the Polish frontier. Marshal Smigly-Rydz, arriving at Czernowitz on the 18th, declared the Polish campaign ended. At Memel, the first elements of the German Army to become available embarked for the Western Front.

During the Polish campaign, the Western Front had been guarded by incredibly small forces. On 27 August, French Intelligence had identified nine divisions. On 14 September, it was possible to distinguish 30 units, 14 of which could be called divisions. The remainder were hastily constituted units without any real combat value.

Despite this thin cordon, the Allies had remained passive, and the chiefs of the



German Army were amazed at such inaction. Hitler gradually noted this Allied defect. It revealed the political and military weakness of the Allies, and Hitler immediately took advantage of it for a supreme effort. Contemptuously thrusting aside the opposition of his generals to war in the west, he determined to tame or to break England. He declared that he would not permit his Army to grow soft through inaction, and his decisions bear witness to this.

When the German armies had finally mopped up Poland, Hitler worked out the outline of the plan for the action on the Western Front. On 14 September he approved, indicated corrections in, or stipulated action in measures which had been taken on this front by General Leeb, who had been designated as chief of Army Group C (southern). These directives rejected a passive policy and soon assumed the form of a "plan" which General Warlimont, head of the OKW Operations Section, revealed to General Stulpnagel, a staff officer in the *Oberkommando des Heeres* (OKH) headquarters, on the 25th.

On the 29th, Keitel and the staff of the OKH examined the conditions of an offensive. Keitel summarized these conditions in a memorandum for Hitler. "In November," he said, "the days are short and the difficulties great for aviation. But this risk is to be assumed in order to exploit the hesitancy and slowness of the Allies." Keitel was a person of concise mentality, submissive to the absolute commands of his master.

On 30 September, Hitler conveyed his determination to the General Staff: "It is imperative that tank construction be pushed with utmost speed."

On 4 October, with all the advanced German forces having been drawn back across the new German-Russian line of demarcation, the various headquarters busied themselves with the westward move-

ment of the divisions from Poland. The occupation of Poland was left to inexperienced replacement units. The Russians were satisfied for the time being, and Hitler did not fear the creation of a second front.

The Western Front now sprang to life. On 7 October, General Brauchitsch, who had been given over-all command, notified General von Bock of an order giving him command of Army Group B (north), which was being created on the right wing. Bock was to be ready to invade Belgium and Holland, if the political situation required. "The Ruhr must first be covered," Hitler declared. On 9 October, "Directive No. 6" was sent to Hitler's principal subordinate, and the "yellow plan," the attack plan for the Western Front, was born.

There was no misunderstanding this directive. Hitler indicated that he was determined "to act very shortly, if England and France do not agree to put an end to the war." He said that a prolonged wait would favor the plans and the strength of his adversaries. The objects of the offensive preparations were defined as follows: to reach the Dutch, Belgian, and French coasts north of the Somme, to beat the main body of the French Army, and to create a protective region in front of the Ruhr. "The start of the attack will depend on the speed with which the armored and motorized units are created. Temperature conditions and, above all, weather forecasts, will determine the time." Hitler had pagan superstitions about the vagaries of the weather, and witnesses report that he sorely tried his meteorologist. From the outset, the German front was to be influenced by Hitler's superstitions.

On 10 October at his general headquarters, Hitler expounded before Brauchitsch, Raeder, Goering, and Keitel the various points of a long "memorandum," a hodgepodge of history, international law, and military tactics. He concluded: "Act as soon as possible when autumn arrives, if

the means are at hand and circumstances favorable."

### Improvising Battle Forces

The creation and placing of an attacking force in the face of an adversary who is already in position and organized is a difficult problem for any strategist. Moreover, the internal difficulties of the German military machine were apparent to all. At the top, there was an excitable chief who wanted to do everything in a hurry. Subordinate to him were incredulous army commanders, and skeptical and contrary staffs. The latter were uneasy but disciplined, and by habit they wished to do their duty. The mass, thus dominated by the summit, speculated on the fate toward which it was being led. Young, mystified civilians, contemptuous of military life, had been placed in training camps to prepare for the attack. A difficult process of fusion ensued, the seriousness of which was not always perceived on the outside. The notes of both Halder and Jodl reveal the existence of clashing views as the new civilian soldiers came into contact with the pretentious members of the Elite Guard (SS) and Storm Troops (SA). These clashes hindered attempts at effective training and alarmed the chiefs. The crisis was marked by undisciplined acts.

All things considered, the German war machine, as seen in the fall of 1939, bears little resemblance to the traditional German Army. The long military paralysis imposed by the victors of 1918 had profoundly affected its structure. In 1939, all who were aware of the serious deficiencies of the German Army knew that it would not be ready for the battle of France. In fact, the German Army bore marks of improvisation until May 1940 and later. It was not until June 1941 that it attained a will of iron and an intensity of action.

The French Intelligence Bureau had been correct. For 20 years it followed the pain-

ful course of the defeated German Army and its renaissance. French intelligence emphasized that the Allies would have to measure their strength, not against the close-knit, traditional German Army, but against a highly trained nucleus with superior equipment, planes, and tanks, operating on new doctrines which will make past concepts obsolete.

Hitler was well aware of the necessity of acting and waging a decisive battle with this army. When, he reiterated on 10 October his intention of mobilizing the entire national life for the purpose of creating a perfectly equipped army, he doubtless foresaw the probability of having to face more than one battle. But there is no trace in his words of the prudence which the attack on the Western Front should have commanded. His only guide was his conception of what was presently real, and of the propitious hour. He ceaselessly repeated that he could not wait and that he did not wish to permit victory to escape him by delay. By decisions which permitted no reply, he emphasized that his determination to attack was not idle and that the initial alert would be continuous.

### Obstacles to the Attack

"We shall attack as soon as possible," Hitler had said. To this, the chiefs had replied timidly: "The army is not ready. The mixed forces arriving on the Western Front are neither trained, officered, nor armed. The morale of the troops is deficient. Let us take our time." Recriminations appeared between the lower staffs and the OKH, and between the OKH and the *Oberkommando der Wehrmacht*-High Command of the Armed Forces (OKW).

On 3 October, General Sodenstern, Chief of General Staff, Army Group South, wrote: "German infantry is better, to be sure, but French artillery is superior. Relations between unit commanders are bad. Troop morale is good, but is based only on confidence in our fortifications. There

will be no new operations,' they say; 'peace is near, only the generals are urging war.'" On the 4th, Halder recorded his uneasiness: "There has been talk, in certain units, of laying down their arms." General Chappuis says: "Cadres are mediocre, very indifferent."

These pessimistic messages added weight to the opinion or firm conviction of the OKH, which reported: "An attack could not be launched at this time. The season and weather are unfavorable. The tanks are not ready. We fear grave political repercussions. Let us postpone the offensive until spring."

Hitler flew into a rage at these words. He asserted that the French were ready to respond at the first call of Belgium and to intervene, favored by the autumn fogs. He said that the Germans must anticipate such an attack by an operation which would improve the military situation, even though the operation only attained a line which would offer better protection for the Ruhr.

On the 9th, General Warlimont informed Stulpnagel that Hitler planned to attack on 25 November. Orders began to arrive from the OKW, goading on the OKH, whose preparatory work had to be completed by 8 November in order that concentration of the forces might be effected by the 15th.

Hitler kept himself constantly informed on the response accorded his orders. He received the army commanders in Berlin where he gave the recalcitrants a good dressing down. Brauchitsch's staff in particular insisted stubbornly on being given time. It urged Rundstedt, who possessed influence with Hitler, to dissuade the latter from carrying out his plans. Hitler, still obstinate, railed against the lack of information furnished him on the Franco-British order of battle and on the location of the Dutch and Belgian forces. But nothing could stop him, and Hitler let it be known that "the preparatory alert (X-day)

will precede by 7 days the order to attack (A-day)."

When would the attack be made? That was the big question which gradually became the obsession of all ranks. From this time on, attack dates were to spring forth from Hitler's calendar like short-lived rockets, until the real day—unknown to anyone, including Hitler himself—arrived.

On 17 October, Halder tells us, Hitler told his staff: "There is nothing more to be hoped for. The English will not be ready to talk until they have given battle. Our only recourse is to seize them by the throat as quickly as possible. The French will not fight stubbornly. Our infantry possesses more determination than theirs. . . . We shall attack between 15 and 20 November. A-day will be announced definitely later." Silent reaction followed. For an Army whose communication network and command centers had not yet been created nor set in operation, this energetic hum of activity bore the earmarks of the paradoxical, perhaps of the invective. We have now arrived, however, at the main alert, the one which explains those which followed. Here, with the fate of Germany in the balance, we find high commanders departing from their usual state of calmness and reserve.

### Opposition at the Top

The highest echelons, which were responsible for conducting and winning the battle, were against immediate attack. Brauchitsch, after vain pleadings, was forced to prepare a "plan for strategic concentration" in accordance with the views of Hitler and inspected Army Groups A and B on 2 and 3 November. He painted a deceiving picture of the front. "It is not possible, at this moment, to launch an offensive with a distant objective. Training of troops is inadequate, consolidation slow, equipment incomplete. There is not the least chance of success." Halder, his chief of staff, was of the same opinion. On 31

October, Rundstedt, commander of Army Group A, sent a detailed criticism to the OKW of the plan, "which can lead only to partial success." Rundstedt's plan would have been: "To beat all the enemy forces north of the Somme and to choose carefully a point of penetration in the center. Leave from a point south of Liege, cross the Meuse above Namur, march in the direction of Arras-Boulogne, and cut the enemy off from the Somme."

At the same time, Rundstedt sent Brauchitsch a personal letter which contained an analysis of the problem assigned by Hitler to the chief of the armies and a refutation of the plan of the OKW. His views, those of an expert strategist, would merit being cited in their entirety. But with only a brief glance, let us note the uneasiness he feels and the reasons he gives for it. His stand in this matter did influence Hitler's decisions and the duration of the German alert. Rundstedt wrote as follows:

"Numerical relationships between forces are not to be regarded in battles of destruction. In the face of the French and the English, our superiority resides only in our active divisions. When these divisions are used up, we shall immediately find ourselves without any trained divisions. Enormous losses of trained men will paralyze the offensive impetus of the forces. The planes and tanks which make the German Army superior may be made ineffective by bad weather and the condition of the terrain. Let us not risk winning an operation with an army whose strength lies in its speed . . . The French Army will not fight, it is said. This, however, is an unfounded assumption. If we threaten France across Belgium, the French soldier will fight. We stand our best chances of success if he attacked. We must, therefore, force him to do so and put to the test his will to fight—which is not very great . . . In the initial phase, we must remain at the Belgian frontier, ready for

a rapid attack. Particularly, we must not use up our forces in attaining limited objectives. Let us conserve them and push their training, in view of a decisive attack and total victory. An army which is capable of attacking will always be the determining factor in decisions on the Continent . . . A war against England can be won only on the seas and in the air . . . Waiting is not a thing that our soldiers desire, but it is the supreme duty of the command not to engage the Army under conditions which would not insure decisive success. General List also shares my views," added Rundstedt. He concluded with the statement that, in any case, he was "ready to face any risks and to assume any task whatever, with the greatest determination."

Two commanders had commented to the same effect, but with expressed, if not ulterior, thoughts. Brauchitsch's plan is not clear; that of Rundstedt and Mannstein is. The latter two desired to defer the attack only long enough to give it irresistible force. We shall not say that their advice was not heeded. In his violent outburst of 20 January, Hitler acknowledged, implicitly, that he had changed his plan.

But let us return to November 1939. Apparently insensible to the objections of the army chiefs, Hitler, through Keitel, transmitted an important decision on the 7th: the attack order would be given at 1800 on the 9th. On the 9th, however, weather conditions were bad. Keitel announced that the attack was postponed until the 19th and that the decision as to the hour of attack would be made at 1800 on the 18th. On the 13th, however, and for the same reasons, the OKW decided that the attack would be made on the 22nd, H-hour to be set on the 16th. Again, on the 16th, Keitel transmitted a message which postponed the attack until the 26th, H-hour to be determined on the 20th. On the 20th, the attack was postponed again to 3 December.

The unfavorable weather continued. Those who demanded better training for the Army and others who were against the proposed adventure did not want the alert and the postponements to continue.

Thus, to all appearances, there existed during this period of waiting for the imminent attack that spiritual break which had characterized the relationship between Hitler and those under him for a long time. Rundstedt avoided letting this difference show through when he sent a directive to the large units of his command on 11 November. He defined the duties of each unit without attempting to cover up the deficiencies of the Army. "We shall correct them," he concluded.

Hitler, however, denied that such deficiencies existed. "There are none," he emphatically stated before the nonplussed army chiefs. And, in a torrent of words, Hitler declared that everything was in better condition on the German side than on that of the Allies, including the air force, armored forces, antitank weapons, artillery, and infantry. "Our Army excels in quality. We shall be victorious." Did he forget that on 5 November he had flown into a rage on learning, through unit reports, that the German front exhibited the same symptoms of lassitude as in 1917-1918, that the training of the troops was inadequate, that the Army was soft, and that the bad weather persisted? Hitler finished by summarily dismissing his audience. "All objective and calm discussion of these things is impossible with Hitler," Jodl stated.

The front became aware, as the days passed by, of the deficiencies of the military machine. "The motorized units are all we have. No reserves are available," Halder noted on 9 November. On the 20th, the Fourth Army called for bridge equipment. Its allotment at that time was not sufficient to allow it to cross the Meuse at Hut and Givet, the first of its assigned objectives. The Sixteenth Army obstinately

demanded the return of its third regiments for the 34th and 72nd Divisions. Others accused the supply depots of bad will. Demands and complaints arose from all the armies. Halder reported traces of defeatism in the Air Force.

### Continued Training

The best witnesses, however, recorded only disagreement and complaints. Hitler insisted on higher production from German industry. Judging from all evidence, the forced delay caused by the weather was not time lost. The various staffs continued their training and finally fell into step with Hitler's plans. In the large units, armies and army groups, the staffs were of high quality and had had traditional training. In the subordinate echelons, staffs were improvised. All of them were busily occupied in carrying out their tasks which, many times under the deluge of Hitler's imprecations and contradictory decisions, they declared to be impossible to fulfill. The forces slowly attained complete form within the army groups, and, if time allowed, they were given complete training in discipline. To a large extent, however, the forces lacked confidence.

Hitler kept those persons near him in readiness. The continuous alert was an ideal lever. Toward the end of November, we note this curious remark to his generals: "The idea is to fan constantly the flames of enthusiasm for the offensive." At the same time, and against the advice of his technicians, he decided to reduce the period between the alert (X-day) and the attack (D-day) from 7 to 3 days. But Hitler's psychology was not a matter of controversy in the German capital. The only matter of importance, all illusions aside, was to be ready to attack. Forces had been in place for this since 8 November.

Hitler did not attack in December, although successive dates were set on the 9th, 11th, and 17th. Weather forecasts



were still unfavorable and January approached with a return of the attack fever. By 27 December, Hitler had fixed 9 January as X-day. On the 9th, an order signed by Jodl said "Wait!"

On the 10th, Keitel sent out an order fixing the 17th as the day. The story of this stillborn attack is well known. On the 13th, Jodl sent out the stereotyped message: "In view of the weather conditions, Hitler has decided to postpone A-day, probably until 20 January . . ."

On the 20th, nothing happened. Nevertheless, Hitler was never more determined. He was in a state of hyper-excitement as a result of all these miscalculations. Never, say Halder and Jodl, did his ill-humor express itself more violently. Hitler threatened, abused, and announced that he would no longer communicate his plans to anyone but his close associates. He ended by saying that they would attack anyhow, as the repeated postponement of the offensive, "was sapping confidence." On 20 January, he came forth with the same violence before a gathering of higher commanders. It is quite true that at this time there was a pause in the series of attack dates in the west.

January was hardly passed when Hitler directed his staff to prepare a plan of operations against Norway, which up to then had only been mentioned. The question put to the OKW was whether the attack on Norway should or should not be undertaken before "yellow plan." Both Warlimont and Jodl limited themselves to saying that these two operations ought to be independent of one another. General Falkenhorst, who had been appointed to command the operational forces in Norway, pleaded for priority. Hesitation and uncertainty continued throughout February.

On 3 March, Hitler decided that the Norwegian operation should have priority. In spite of a few instances of lost motion, preparations progressed rapidly. By 12 March, it would have been possible to

fix the operation for the 20th if the ports had not still been blocked by ice.

Meanwhile, Hitler had met with Mussolini on the 18th. On the 26th, Hitler announced that he would land in the Norwegian ports on 8 to 10 April. At this moment, he exhibited great optimism: "Never was the balance of political and military forces so favorable to us." On the 2nd, after consultation with Goering, he decided that the operation would take place on the 9th, the air-naval action beginning on the 5th.

While the Norwegian operation was in progress, and in spite of the fact that the fate of the forces which had landed gave him cause for considerable uneasiness at times, Hitler continued to be haunted by the problem of the Western Front. On 24 April, after receiving reassuring news from the north, he announced his intention of putting the "yellow plan" into execution between 1 and 7 May. On 30 April, having learned that contact had been established between Oslo and Trondheim, he immediately ordered that everything should be ready by 4 May to begin the operation on the Western Front. New hope was beginning to rise in the German armies.

### The Decisive Hour

On 4 May, the day the English evacuated Namsos, Hitler fixed Tuesday the 7th as the day of the preparatory alert in the west. On the 5th, he decided to call a new class of reservists for 15 May. His eyes never again left the Western Front.

Preparations had been speeded up to the maximum. The invasion of Norway had not interfered with these preparations in any way, but it was a diversion which provided security for the main plan. Sixty elite divisions were ready and anxious for the attack to start. More than 50 other divisions which had been built up over a period of 6 months with older men did not possess the same aggressive spirit.

That same day, 5 May, Hitler fixed A-

day for Wednesday the 8th. The signals designated were "Dantzig" (attack) or "Augsburg" (wait). On the 7th, Hitler prepared to leave for the front. But the meteorologist said the weather was uncertain. Hitler then notified the armies that he would make his decision before midnight of the 8th. He was very nervous, Jodl tells us. This new delay exasperated Hitler. He feared that the plans would be divulged by the Italian press.

On the 8th, alarming news came from Holland. Leaves were suspended, evacuations ordered, barricades erected, and mobilization measures taken. The OKW wondered whether Holland was carrying on secret negotiations with England. In the meantime, the meteorologist reported a progressive improvement in weather conditions, predicting cloudy skies, however, for a few days. Hitler was greatly agitated. He did not wish to wait any longer. Goering asked Hitler to postpone the attack until the 10th. Keitel insisted on an immediate attack, but Goering finally won out. Hitler agreed—though against his will, he said—to postpone the attack until the 10th, "but not one day longer."

On the morning of the 9th, Hitler de-

cided that he would be at the front on the 10th. He left at 1700 in the afternoon and received, while en route, the forecasts of the meteorological section, which predicted favorable weather for the following day. At 2100, therefore, Hitler issued the signal, "Dantzig."

It was still night when Hitler's special train arrived at Euskirchen, where the first reports reached him of the success of the initial attacks. At 0520, he was at Felsennest, temporary command post of the supreme chief of the German armies. The alert of the Western Front, decreed in October 1939, had ended with the twelfth of Hitler's attack decisions.

The attack and the maneuver conformed to the rapid and jerky style characteristic of Hitler. It was preceded by bluffs, feints, and deceptive propaganda. For 8 months, Hitler had railed against the weather and other circumstances. One thing is evident: the attack started just as soon as the German tanks were able to move over the terrain. Should we, then, subject Hitler's personal acts to the analysis of the psychiatrist? This self-made man, who bore the marks of mental unbalance, was probably only a conformist.

## Two Years of Pakistan Independence

Digested by the MILITARY REVIEW from an article by Major A. J. Wilson in "The Army Quarterly" (Great Britain) October 1949.

THE Dominion of Pakistan began its career as an independent nation on 15 August 1947, beset by great difficulties. There was no established capital nor armed forces headquarters; of the five provinces, two (West Punjab and East Bengal) were in the throes of partition, while the civil servants and service officers required to establish the new nation were scattered all over the sub-continent, many of them still employed in the appointments which they were holding in pre-partition India. To

add to these problems, the holocaust of communal violence which swept the Punjab in September 1947 led to a movement of populations on a scale unprecedented in history, thus facing the country with the task of absorbing and resettling several millions of homeless and utterly helpless refugees.

The story of the first 2 years of Pakistan's national existence has consequently been one of transition from threatened anarchy and chaos to steady development

towards relatively balanced and stable conditions. It would be over-optimistic to maintain that full stability has as yet been achieved. It is, however, undeniable that the progress made has been remarkable, reflecting credit not only on the ministers and administrators responsible, but also on the people of the country as a whole. For perhaps the most striking feature in these first 2 years has been its essential patriotism and unity. This was expressed at first in a deep almost religious devotion to the person of Mohammed Ali Jinnah, coupled with a blind faith in his ability to steer the nation through her initial difficulties with the same unswerving determination he had shown in bringing into being the conception of the state of Pakistan. Since his death on 12 September 1948, these personal feelings have developed progressively into a strong patriotism and sober determination to ensure the national future.

The death of Jinnah has not, as was feared, been a disruptive factor. It has, in fact, tended to draw closer together different elements in the nation. With the help of this popular resolution to establish the country on stable and sound lines, more progress has been made in the civil field than seemed even remotely possible at the end of 1947. The refugee problem, for example, has been largely solved by a resettlement scheme in Upper Sind, distinguished for the administrative skill with which a huge movement program from the West Punjab was conceived and executed.

The central budget, despite heavy calls on it for defense expenditure, has been balanced for 2 successive years; there is a satisfactory balance of payments in overseas trade; plans have been made to provide the necessary electric power, which is required as a first step to any large scale industrialization—these and many other successes stand to the credit of the government. The progress made in the civil field cannot be overlooked in making

any estimate of Pakistan's present strength as a bulwark against the spread of communism into the Indian Ocean area.

### Military Situation

In the military sphere, one of the most significant events has been the complete reversal of the Northwest Frontier policy initiated by the old government of India with the occupation of Waziristan in 1924. Shortly after partition, the government of Pakistan decided that the continued occupation of Waziristan would be a strain on the financial resources of the Dominion, which was no longer justified by necessity. It was felt that the tribesmen would not feel the same hostility towards Pakistan as in the past towards the British, since Pakistan would itself be an Islamic state.

Accordingly, in December 1947, Operation *Curzon* was carried out, after which no regular troops remained in Waziristan, the task of maintaining order being left to the political authorities and the Scouts. This policy has so far been justified by events and the frontier has been quieter than at any time in its history. Since the summer of 1948, there has been occasional apprehension but no incident requiring the intervention of the Army.

A recent attempt by the Afghan government to draw the attention of their people away from the serious conditions obtaining inside their own country by attempting to raise again the cry of "Pathanistan" has met with little success. The tribesman has no wish to jeopardize the continued receipt of the subsidies paid by Pakistan to the tribal areas (the same as under British rule) by rash flirtations with the Afghans. The fact that the subsidies paid by Pakistan exceed the total Afghan national income has not escaped the attention of the *Malikis*, whose intelligence in matters of this nature should not be underestimated. In terms of actual force, there is no comparison between the two nations—a fact well understood by the

Pathan, a practical warrior, whose existence has for so long depended on his ability to make military appreciations.

Another factor which has combined with the withdrawal from Waziristan greatly to increase the striking power of the Army has been the absence of the need to employ troops in support of the civil power. The almost complete evacuation of the Hindu and Sikh minority from the Northwest Frontier and West Punjab has meant that communal trouble, except for one "flare up" in Karachi in January 1948 quickly brought under control, has become a thing of the past. It has consequently been possible to organize and train the Army in mobile formations poised and disposed for active operations. The old district and sub-area headquarters, except for three lines of communication sub-areas designed to free formation commanders from details of local administration, have thus disappeared, leaving behind an Army far less static in outlook than the pre-1939 army in India, inevitably preoccupied as it was with problems of local administration and internal security.

The Kashmir operations and the regretably troubled relations with the sister Dominion of India have resulted in high military expenditure and entailed a considerable increase in the size of the armed forces. While it is too early yet to attempt an estimate of the final result of this enforced expansion, the ultimate effort cannot be expected to be wholly satisfactory. There is, of course, no lack of suitable military manpower in the country; the available resources of officer material are, however, very limited, and there is practically no reserve. Consequently, the production in war of adequate officer replacements for these expanded forces would present great difficulties. It follows that improved relations with India are essential, both in order to cut down expenditure on defense and so that integrated and bal-

anced Indo-Pakistan armed forces, capable of ensuring the security of India as a whole, can be developed. The sub-continent, despite its political partition, remains a geographical and strategical whole and cannot be defended satisfactorily in the absence of cooperation between its two component parts.

### Relations with Britain

Pakistan's relations with Britain and with the Commonwealth as a whole are matters of considerable moment and are at present broadly satisfactory. It cannot be denied that at the outset there existed in certain quarters a feeling of bitterness towards Britain as a result of the breakneck speed with which the decision to partition India was executed. The haste, both in the transfer of power itself and the division of military assets, undoubtedly benefited India at the expense of Pakistan, since the former possessed an established capital and administrative organization, while the majority of service installations were located in her territory. There were unquestionably sound reasons for the speed with which Lord Mountbatten decided to act. It was perhaps inevitable, however, that those Pakistanis who suffered severely in the troubles of the autumn of 1947 should see only the unfortunate consequences to themselves and their country. Feelings of this sort have now largely died down, and there is among many Pakistanis a genuine desire for continued friendship and association with Britain.

### Summary

Pakistan's prospects are relatively bright. That there are still many difficulties to overcome, no Pakistani would deny. It is essential to obtain a final settlement of the Kashmir dispute which will satisfy the people of that unhappy state and leave no room for recurring bitterness between India and Pakistan. The standard of living of the ordinary man must be raised

if the country is to play its full part in checking the spread of Soviet ideas and propaganda. While there is at present little overt communism, such doctrines could easily come across the frontier from either India or Burma and any undue complacency would be dangerous. The civil administration must be greatly improved, the political life of the country purified and its basis broadened, and a proper educational system introduced—all these and many other problems call urgently for solution.

The country has many assets—a virile and patriotic people, in normal years an exportable food surplus, a large proportion of the world's jute, and relatively stable conditions for further development. Given normal times and settled world con-

ditions, she could with reason anticipate an assured and prosperous future. Situated, however, at the crossroads between East and West and with neighboring states whose stability is less certain than her own, Pakistan's main preoccupation at present is to ensure her own security and integrity. Whatever her ultimate constitutional position, it is probable that she will find it convenient to be closely associated in this task with Britain and other Commonwealth countries. Certainly all who have served in Northern India will congratulate the new nation of Pakistan on the courage and determination she has displayed in the first 2 years of her independence, and they will wish her well in facing the trials and troubles that lie ahead.

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## German Close-Support Aviation at Night

Translated and digested by the MILITARY REVIEW from an article by Lieutenant H. H. Külle, of the former German Luftwaffe, in "Flugwehr und -Technik" (Switzerland) October 1949.

DURING World War II, it was shown that the available heavy night-bombing and night-fighter formations of the German Air Force were not capable of fulfilling their desired missions. Particularly lacking were measures in the immediate vicinity of the front that could make it difficult for the Allies to move supplies forward and organize assembly positions during hours of darkness. Although German long-range artillery was adequate for this purpose in many cases, combat situations often arose in which visual observation could not be used in determining targets.

In 1943, fast combat formations were developed for use in those combat areas where there were strong Allied ground and air defenses. Since the Allies' defenses, especially in the vicinity of the British Isles, progressively stiffened as the War progressed, the German Air Force was forced to place more and more emphasis on

these fast combat formations. This was the case, too, with the fast fighter wings equipped with *FW-190s* and *Me-410s*, which were the only planes capable of attacking the London areas during the months preceding the invasion. The employment of large formations led to such heavy losses at this time that their employment was progressively restricted.

With the beginning of the Allied invasion of Europe, the operational area of the German fast-fighter formations was more and more confined to the immediate front and to attacking naval targets. Their mission became increasingly that of night combat. Allied ground targets in close proximity to the front were attacked by day in very bad weather and by night in almost all kinds of weather. The rapid-fighter formations thus became night-fighter formations, and their strength was increased. In addition to night-fighter for-



mations, nuisance-raider formations and night-reconnaissance planes were used.

The nuisance-raider formations originated on the Eastern Front in 1941 and were used by both sides to prevent the opposition from getting rest, especially at night. These planes, most of which were taken from Air Force schools in order to accomplish a special purpose at a relatively low cost, did the enemy little harm compared to the damage inflicted by the night-fighter. The employment of nuisance-raiders was confined to areas in which both ground and air defenses were very weak.

Night reconnaissance, which often succeeded in discovering night assemblies of troop units in time to take adequate defense measures, was of far greater operational value. Other missions of night-reconnaissance planes were the discovery of enemy battery positions and the guarding of supply columns.

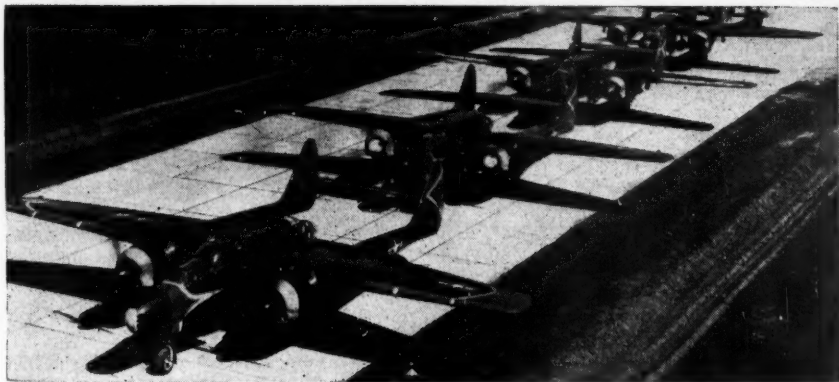
### Training and Organization

In creating fast-fighter formations, pilots were first obtained who had already been trained in the planes to be employed. Since these were usually fighter and dive-bomber planes, a lack of regular blind-flying training on the part of their pilots had to be expected. After the formations began operating, they were supplied with pilots from the bomber units, which were slowly disintegrating. A large percentage of the crews were also taken over directly after completing blind-flying training in front-line type planes. Toward the end of the War, a large number of blind-flying instructors were retrained in small, single-engined planes. This, however, was only an emergency solution with many deficiencies. If pilots came from the rapid formations, their blind-flying training was poor. If they came from the bomber formations, it was often difficult for them to become used to the single-motored planes, and their blind-flying qualifications and training were not adequate.

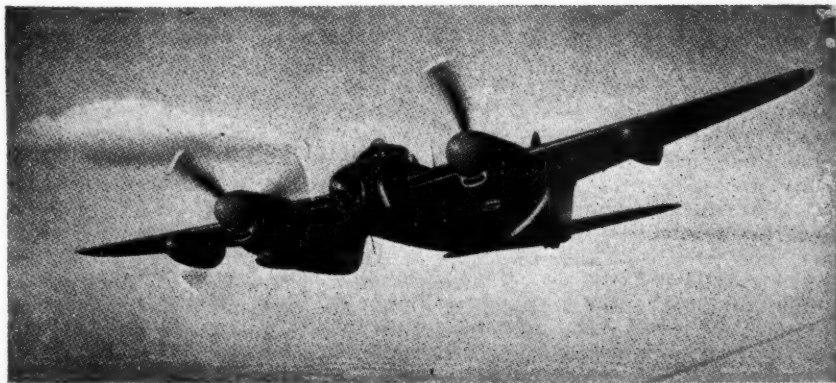
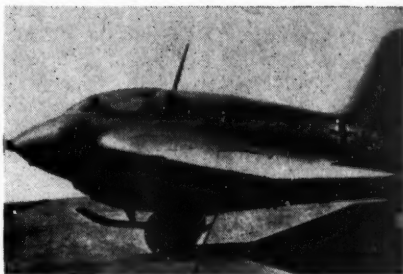
Pilots taken over directly from the blind-flying school classes started operating after having made about 500 flights, comprising about 500 flying hours. These pilots were generally about 19 or 20 years of age. Because of the advantage of their youth, they were able to adapt themselves rapidly to the situation and did not greatly miss the support of a crew. Their greatest handicap was lack of flying experience.

In order to obtain capable pilots for fast planes, the pilots had to be fully trained in blind flying in heavy planes and then retrained in modern fighter planes. This training consisted of a complete fighter- and dive-bomber flight program. With this training, the pilots of night-fighter aircraft were among the most highly qualified personnel in the German Air Force. They were given the opportunity to engage in night flights, with definite targets, over long distances, in all kinds of weather, in order that they could learn the functions of an airplane pilot, radio operator, and bombardier. Experience had shown that such heavy demands on a pilot could be endured for only a limited time.

Because of their varied missions, the German night-fighter formations had an organization that was somewhat different from the usual bomber formations. The largest unit was the group, which was directly under the personal orders of the commanding general of the fighter command. Because of its small ground organization, it could be rushed very quickly to the scene of the fighting. The squadrons were so equipped that they could be engaged separately in different places. This great mobility, which was extensively used, caused the Allies uncertainty as to the strength of the night-fighter formations. As was later revealed, the Allies in the west believed themselves faced with two or three complete night-fighter wings. As a matter of fact, however, only one group equipped with *FW-190s* and two groups equipped with *Ju-87s* were in operation.



The German Air Force encountered many problems when it had to turn to night fighting. The US *P-61 Black Widow*, above, caused the *Ju-87s* much difficulty. Among the planes which the Germans developed toward the end of the War was the *Me-163 Komet*, right, rocket interceptor. The British *Mosquito*, below proved to be somewhat faster than the German *FW-190*, although the Germans said it was not frequently used against their night attacks over Britain.



### Equipment

The *FW-190s*, in its several variations, and the older *Ju-87Ds*, to a certain extent, were employed in the night-fighter formations.

While the *Ju-87*, because of its low speed, no longer met requirements, the *FW* at that time was a very useful plane for this type of employment. The older models were able to carry two extra tanks under the wings. By this means, their flying time was increased about 2 hours, a factor that was absolutely indispensable for the operations against London. A carrying rack for bombs up to 2,200 pounds was mounted under the fuselage. The newer *FW-190 F8s*, which were used almost exclusively by the end of the War, had attachments for two 110- or 165-pound bombs under each wing and the usual one for a 2,200-pound bomb under the fuselage. Instead of this large bomb under the fuselage, a so-called "ironing board" could be attached which made it possible to carry eight smaller bombs. This arrangement was used almost exclusively in practice bombing.

Normal armament consisted of two 13-mm machine guns firing through the propeller and two 20-mm cannons at the base of each of the wings. Two additional machine guns could also be built into the wings.

The ammunition belts were loaded in different ways, with either tracer or plain ammunition being employed. The plane's weapons functioned very well and seldom caused any difficulty. As regards bombs, the planes used high explosive bombs, aerial mines, anti-personnel bombs, and hollow charges in dropping containers. The normal load consisted of four 144-pound bombs underneath the wings and one 1,100- or 2,200-pound bomb under the fuselage. In a few special cases, the *FW-190* even carried a 3,700-pound bomb for the destruction of bridges. Even with this load, a 4,000-foot runway was quite sufficient.

The speeds of the *FW-190* with varying loads were as follows: no load—285 mph; 1,540 lbs.—260 mph; 2,200 lbs.—225 mph. The fastest plane in each group—the "pathfinder"—was not painted, was unarmed, and flew at 375 mph.

A well-equipped night-fighter formation with well-trained pilots could be used for more purposes than any other formation in the German Air Force. Employment mainly was governed by weather conditions and the current combat situation.

Generally speaking, three types of employment could be distinguished:

1. Night operations, under all weather conditions.
2. Bad weather operations in the daytime, with a lower cloud limit of up to 300 feet.
3. Daytime employment in good weather. This was done only in case of necessity and with fighter protection.

In each of the three types of employment, the following were factors to be noted:

1. Surface targets were attacked en masse or by single planes. If en masse employment was used, the target was lighted by the "pathfinder" at the time of attack.
2. Battery and assembly positions attacked as in 1, above.
3. Special targets such as bridges, bunkers, or command centers were attacked by single planes only and at dusk.
4. Single planes were used in action against enemy forces on the march, especially tanks, trucks, or columns.
5. Armed close-range reconnaissance was carried out in the immediate vicinity of the front to a depth of some 60 miles, along with attacks on ground targets.
6. Long-range reconnaissance was conducted behind the front to a depth of some 300 miles, depending on the radius of action of the aircraft. Railway and highway vehicles were attacked with the plane's weapons.

7. Ships on the high seas, in coastal areas, and in ports, were attacked by dive-bombers only.

8. Night pursuit of approaching and departing bomber formations in the operations area, with and without guidance, was employed.

Methods of attack varied according to the targets. In case of a very strong defense, bombing was often of the skip-bombing type. This method can be successfully used, however, only against surface targets. Point targets and small targets were dealt with either in a gliding attack at an angle of 30 degrees or in dives at 70 degrees. In this method, however, attack altitudes had to be from 10,000 to 13,000 feet, depending on the purpose of the attack. At 30 degrees, the plane speed was about 375 mph; at 70 degrees, it was 465 to 500 mph.

Very steep dives were seldom used in night attacks, however. In practice dives at the schools, under good conditions, average dispersions of 20 yards were obtained. In actual combat, due to defensive action and psychological factors, dispersions were often greater; only repeated employment of several planes insured success. In good weather, as a rule, three attacks were flown in a single night. Experience showed that pilots could hit targets only when very familiar with the local target situation. But as a rule, this was not the case until after the first or second attack. In such cases, therefore, when repetition was not possible, results were usually poor.

Under good weather conditions with the target clearly marked, excellent results were obtained. Thus, for example, 24 Allied batteries near Aachen were put out of action in three attacks. This provided material relief for the German ground forces. Attacks in which a long flight was required before reaching the target made the task very difficult—as was the case at Bastogne; in most cases, there were not

enough navigational aids on the ground to provide proper orientation.

It was also very difficult to locate a small pocket of only a few miles breadth after a long flight. Here again, only repeated attacks would insure success, but even this is difficult when long flights are required. As a rule, attacks at dusk were successful when the takeoff was so timed that the planes arrived at their targets just before dark. In this case, visibility was good enough for the pilot to see the target, but inadequate for defense fighters and antiaircraft artillery. There were good conditions of visibility on nights when the moon was full, especially if the ground was covered by snow. Perfect low-level flying could be carried out at altitudes of from 60 to 90 feet above the ground. The advantage of an approach at low altitudes was that enemy radar could not detect the planes until very late. This prevented defensive measures from becoming fully effective.

When the combat situation required, night attacks were also made with lower cloud limits down to 600 feet. Such attacks were mainly only nuisance raids. In these cases, targets could not be easily or clearly identified.

The ideal weather conditions for night-fighter employment were moonlight with lower cloud limits between 4,500 and 9,000 feet.

#### Navigation Aids

The most important factors in the execution of night attacks were thorough flight preparation, accurate determination of the course, and good knowledge of the terrain. The most reliable navigational aids were blinker lights which sent out their signals regularly and led to the immediate vicinity of the front. On the return trips, it was possible to pick up directional radio beams from the base. These beams did not have great range and were affected by weather conditions. The most dependable aid was map orientation, in which water

areas, especially, were easily recognized. Another important aid to navigation was the compass.

Orientation by means of radar was employed in some cases toward the end of the War. The supplementary equipment of the planes for this method of orientation was an apparatus which automatically signaled as soon as it came into the beam of the piloting device. Only by this means was it possible for the directing agency on the ground to identify the guided plane. Course data was given to the pilot at a special wave-length over the apparatus. In this way, it was possible to operate even with very poor visibility, since the pilot was able to know when to release his bombs. This so-called *Egon* System was also advantageous in cases of strong defense. In this case, two or three planes flew together, one being escorted while the others protected it from attack by night fighters.

### Defense

Defenses using searchlights and artillery were encountered most frequently in night attacks. Medium *flak* and the blind-firing light *flak* were by far more unpleasant than tracer ammunition. Heavy *flak* was used less frequently against night-fighter formations in the Western Theater, since most flying there was done at altitudes of between 6,000 and 9,000 feet. In general, Allied *flak* was not dangerous for the *FW-190* at night, since its flying speed was usually greater than that against which the light *flak* was effective. As a result, the *flak* was usually to the rear of the plane. With a few defensive maneuvers, it was easy to avoid this fire and, due to high flying speed, a plane was soon out of the reach of the light batteries. In attacks by day or at dusk, the light *flak* was unpleasant, however, and it was easily able to prevent any attempt at accurate bombing. As a rule, searchlights did no more than contribute to the uneasiness of the pilots.

Night-fighter defense was only slightly effective against the *FW-190*, for even the British *Mosquito*, which was seldom employed, was only slightly faster. Contact and combat with Allied night fighters was seldom reported by night-fighter groups employing the *FW-190*.

The *Ju-87* formations, on the contrary, suffered far more from night fighters, for the American *Black Widow* was employed against them. *Flak* was also far more successful against the *Ju-87*. Losses, however, considering their heavy employment, were quite slight, this being due, in part, to their very good defensive feature.

Most losses were due to the fact that new pilots arriving at the front had difficulty in accustoming themselves to the great hazards encountered there. These losses could have been considerably reduced by careful training. Periods of crisis came at about the seventh or eighth flight and between the 23rd and the 28th. If a pilot got over this hump, he could almost count on the next 50 flights being accomplished without difficulty. This shows how decisive were physiological and psychological conditions, and of what little importance defensive measures proved to be. The greatest losses occurred in training. Usually they were about double those on the front.

### Summary

The night-fighter formations, which originated in World War II and which were used particularly on the German side, proved indispensable in modern aerial warfare. There is no other formation or arm which can perform the missions assigned to the night fighters. A night-fighter formation, if equipped with suitable and dependable planes of good capabilities and with carefully trained personnel, is a weapon that can be employed in more ways than any other, and with good chances of success. The night fighter is therefore indispensable in a modern air force.



## The Australian Army Today

Digested by the MILITARY REVIEW from an article by Lieutenant General S. F. Rowell, Vice Chief of the Australian General Staff, in the "Australian Army Journal" June-July 1949.

UNTOLD harm is being done to Australia's defense organization in general, and my own service in particular, by a band of self-constituted critics who condemn the government's defense policy as a whole, who say the Army is a poor show; and that, in general terms, our state of preparedness for war is far less today than it was before World War II.

All this criticism is having two effects. First, it tends to a writing down of the services in the minds of the general public. This is bad, because no service, whether it be Navy, Army, or Air Force, can have a high morale unless it has the good will of the community from which it derives. Second, the young man who has ideas of joining the Regular Army or the Commonwealth Military Forces (CMF) is perplexed. On the one hand, he sees recruiting posters and hears recruiting propaganda which state that the Army is a good show. He then reads in the press that the Army is so much waste of time based as it is at present on a voluntary system. At his age, he is not trained to assess the worth of the criticism given. As often as not, he accepts it, and so you get the result that today some people who should be our best friends, are, for reasons best known to themselves, our worst enemies. I feel that the time has arrived when someone, quite free from any political bias, should put the case for the Army.

### Universal Service

You can take it that opposition to the existing order of things is primarily based on the categorical statement that "anything less than universal service is useless." Now there is a lot of loose thinking on many things, but on none more so than this question of universal service. I do not propose to venture into the realms of

political controversy, as that is not my business. Nor am I competent to discuss the effect that the introduction of universal service would have on our present economic organization. But I am competent to say this:

First, in general terms, the Army is the only service which benefits in peace by universal service. The Navy and Air Force, with their high proportion of skilled tradesmen, look to the long-service personnel to fill their ranks.

Second, universal service would involve a large increase in the annual defense budget.

You cannot consider defense in several water-tight compartments—it must be dealt with as one joint service problem. It follows, therefore, that, if you propose to spend a lot of additional money on a system which benefits only one service, you must then think again and decide whether, from the over-all defense aspect, these additional funds should not be devoted to all three services. Lest it be forgotten, the Navy and the Air Force are just as important as the Army and, in the future, as in the past, they may well have to absorb the first shock of war. I am certain that my point of view is more nearly realistic in the present world strategic situation than that of those who continue to urge universal service as the first of our defense requirements.

The next allegation is that the Army is a poor show. I have always taken it as a matter of principle that every dollar spent on the services in time of peace must be justified on the basis of the value it produces in war preparation. Against this background, let us look at the existing situation in the Army.

We finished the war a little over 3 years ago with over 400,000 men in the

Army. And the great clamor in which everyone joined, whatever his station in life, was to demobilize just as fast as possible and get back to normal. The problem then was to retain what we thought would be essential to the future, at a time when the postwar defense policy had not been, and in fact could not be, determined. Fortunately, the British Commonwealth Occupation Force (BCOF) was a great help here as it enabled us to retain many pieces of the organization which might otherwise have been swept away. It also gave us continuous experience of maintaining not only the Australian element of the Occupation Force but also those of other Empire countries concerned.

### Postwar Policy

In July 1947, we started off on the implementation of the Army's share of the government's postwar defense policy, and there can be no two answers as to what was the major problem. It was to "re-establish our basic organization," in other words to get back to a framework of formations and units on which we could build in an emergency. This has meant a heavy program of training cadres of regular personnel for CMF units, and of reconditioning equipment and training depots. And I say advisedly that, to the extent necessary to meet the needs of an emergency, we have reestablished our framework.

In the course of this work, we have come acutely up against the two major national problems of the day, accommodation and manpower. In so far as housing is concerned, we have to take our place in the priority lists, and it is true that some of our accommodations for regular personnel are at present below the standards we have fixed for the future. But every day progress is being made in this regard. The position is the same for the CMF training depots where we have been limited to the essential renovations and repairs of existing drill halls. Coming to

manpower, the services are in open competition with civil industry, and civil industry can generally offer greater inducements. Nonetheless, we are getting a steady flow of recruits for the Regular Army, just as many as we expected to get, having in view the chronic all-round shortage existing today.

As far as the CMF is concerned, we are recruiting at the rate we expected. Although the target figure is 50,000, it was never anticipated that we would get this number in one wild rush. Those of us with experience of the prewar militia know that the build up of CMF units is a gradual process and that the best recruiting agent is the satisfied soldier who advises his friends to join up. The material we are getting is splendid, far better, I believe, than we had before World War II. Some of the work I have seen in camps this year is high class when one considers that we only started recruiting for the CMF in July 1948. Numbers are not everything, provided there is an adequate cadre to train young officers and NCO's. It is to be remembered that, with extremely slender numbers in the period between the two wars, we produced the officers for four Australian Imperial Force (AIF) Divisions and they lost nothing by comparison in war with the officers of the national armies of other democracies.

The third major element in the Army today is the Cadet Corps, which has a strength of about 25,000. This is one of our best branches and it is of great value not only because it gives the future leaders some insight into military principles while at school, but it also provides a recruiting ground for the CMF and for those who wish to make the Army a permanent career.

I would not like you to think from what I have said that we are complacent. This is not the case. We have many problems which can be solved in due course. But we do need the good will of the community,

particularly in relation to helping rather than penalizing those young men who have the spirit to join the CMF.

### Position Today

The last allegation I want to answer is that our state of preparedness today is less than it was in 1939. One critic said, "In 1939, we had seven divisions. What have we got today?" What he did not say was that the total book strength of those seven divisions was about 30,000, of which at the best 25,000 were effective, and that they had little or no modern equipment. I am not here to make suggestions as to where the responsibility lies for this state of affairs. All democracies in the period between the two Wars took the line of disarmament and appeasement and we are all equally responsible for the troubles that came upon us in 1939.

But what is the position today in relation to 1939?

First: We have a wealth of equipment which, in its main essentials, is as good as exists anywhere today. In some aspects, we are dependent on overseas supply, and we have to take our place in the priority of production. Those of you who were actively involved in the Army in 1939 will remember there were no Bren guns; we had no artillery of a date later than 1912; we used broom sticks to represent antitank guns; and we had no vehicles, which are as essential to the Army today as ships are to the Navy and aircraft to the Air Force. A visit to any CMF camp today will vividly illustrate the contrast.

Second: We have a greatly improved organization with which to meet a future

emergency. Our staffs in headquarters and regular cadres in CMF formations and units are stronger and better all around than they were. They have had the experience of a long war in which to develop the capacity of mobilizing, training, and maintaining any force which may be needed in the future.

Third: We have a great reservoir of trained personnel who gained their experience the hard way and whose value as a potential reserve will remain with us for some time. It is from this reserve that we have officered the CMF today, and very fine officers they are.

### Conclusion

I want, in conclusion, to deny categorically two charges which are made from time to time against regular army officers.

The first is that we are not interested in the voluntary system for the CMF. This is sheer nonsense. Our business is loyally to implement the government's policy, and our livelihood, just as with any other business concern, depends on the success we make of our efforts.

The second charge, made only recently, is that we do not want universal service and are interested only in large regular forces enlisted for long service. This assumes that, as a profession, we have no appreciation of the economic and manpower problems involved in raising large regular forces. We are only too well aware of the limited manpower pool available to us and of the high and ever increasing costs in running a regular force, and we know, perhaps a little better than the critics, just what forces we would be likely to obtain and what funds could be provided for its maintenance.

## Naval Weapons

Digested by the MILITARY REVIEW from an article by James Griffiths in "The Fleet" (Great Britain) October 1949.

WHENEVER a new missile, or a new aircraft, or a new destructive agency is announced, it is natural to consider the implications of the development in terms of its value to the Royal Navy. Many people hold—possibly quite rightly—that building up a huge pile of armaments and military understanding in the use of modern weapons will never prevent a world war which would be ruinously destructive to both victor and vanquished alike. This may be so, but international affairs are still regulated by the tangible elements of military strength. The atom bomb is considered by Mr. Churchill and many others to be the main reason why the Russians have been contained behind their present frontiers.

Military strength, in other words, is still something that is fully understood. Therefore, if we are to be committed to spending a large part of our wealth in the development and production of armaments, it is right that all steps should be taken to see that appropriations are not withheld to vital lines of research. Much can be done towards economizing in the building of armaments by using those weapons which are, to some extent, common, whether used by land, air, or sea forces. There are two types of weapons which stand out as being of common interest—one is the guided missile and the other is the manned aircraft. In addition, there is the type of mass destruction weapon and both missile and aircraft construction is, to a large degree, conditioned by the powerful weapons which they are expected to carry.

The Royal Navy must now consider whether they are in fact interesting themselves in the right kind of weapons. In the case of the guided missile, it is extremely

difficult to comment upon this in Britain because, as is well known, there is a complete blackout on all news—or at any rate all up-to-date news. At a recent air exhibition, a rocket was featured on the display stand of the Ministry of Supply which showed that a certain amount of research is being done to provide the fighting services with a guided missile they can use. But there is nothing which can really be said about British developments.

A good deal can often be deduced by examining United States products, as the Americans do not seem to be so severely restricted as we are over what they can say. Moreover, the Americans have vastly greater resources and they can often design and develop equipment which will never be used but which will help to fill in many gaps in our knowledge of the characteristics of the weapons. In Europe, the best we can do is to try and obtain this information in wind tunnels or with small models of about 6 feet with telemetering radio equipment.

A difficulty, however, in all work which involves the Navy using weapons which may be developed for the other two services is the increasing complications in using them at sea. In nearly every case, the operation of weapons at sea introduces a number of entirely separate problems and it takes longer to solve them. Consequently the weapons are more expensive to produce and there is a greater delay before they can be used. This applies to both guided missiles and to ordinary aircraft. These types of craft are getting so involved that a larger team of pure scientists and specialists in the Navy is required to operate them most effectively. There is, therefore, a need for the Navy to give men every chance to specialize in any one of

the main fields; in particular, electronics is one which calls for larger numbers of trained people.

It is always necessary, also, to review carefully the more traditional kinds of weapons. The torpedo is a case in point. It will have to be decided whether the case for the torpedo can be made out with the increasing strength of modern high velocity rockets. The "Uncle Tom" rocket, with a diameter of about 12 inches, has astonishing penetration powers and, unlike the torpedo, travels so fast that it cannot be dodged. The torpedo is a more difficult weapon to carry in a naval aircraft. There are many other advantages to using rockets. None of this necessarily makes the torpedo out-moded, but it will be for consideration whether smaller numbers of torpedoes will be required. The same applies to depth charges and to many of the more familiar methods of submarine detection.

Radar, nucleonics, and transsonics open up an entirely new field of offensive and defensive equipment. Much greater care

will be needed in deciding upon the types of weapons because their cost is so great that there is a greater possibility of locking up large numbers of key technicians in the development of projects which may suddenly prove impractical or which cannot be used for any one of a great many reasons. In the old days, it was possible to cut our losses in an abortive line of research and continue doing something fresh; this easy way out is not economical now.

To minimize the possibility of expensive research proving useless, it is more than ever necessary to understand the basic scientific principles at a very early stage, and this calls for a greater knowledge of pure theory.

The Navy also has to sponsor new developments without leaving the men weaponless. The transition from old to new equipment must be undertaken gradually and the weapons must not be introduced to the service before they are properly tried. This smooth flow has always been difficult to arrange—and never more so than today.

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In this constant competition among the nations for more effective weapons of war, the struggle reaches down into every laboratory and research facility—military and industrial—government and civilian. It calls upon the best scientific minds and the most skillful technical hands. It asks for studies in purely theoretical fields. It requires quick translation of our innovations in knowledge into practical fighting equipment, so simple in design that they can be produced by industry in mass. Finally, it demands men of rare vision whose thinking can be adequately attuned to the powerful tempo inherent in these up-to-the-minute developments, men whose judgment can develop sound strategy to make maximum use of the full potential of the weapons we develop.

*Secretary of Defense Louis Johnson*

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Scientific research makes it possible to throw into battle some innovation which, although not necessarily decisive, remains for a long time as a weapon against which there is no defense.

*Minister of National Defense M. Ramadier, France*



## Polish Naval Activities in World War II

Translated and digested by the MILITARY REVIEW from an article in "Bellona" (Polish Quarterly of Military History, London) No. 2, 1949.

AT THE outbreak of World War II, there were two groups of Polish vessels outside the Baltic. One was a training group composed of the transport, *Wilja*, and the *Iskra*, a sailing vessel. The *Wilja* was at Casablanca undergoing repairs for damaged boilers, and the *Iskra* was in the vicinity of the northwest coast of Africa. The commander of the *Iskra*, on receiving the news of the outbreak of war, took his ship to Casablanca. The crew and one class of 50 cadets from the Polish Naval College were transferred to France and afterwards to England.

The *Iskra* was used by England as a base ship at Gibraltar. The *Wilja* was transferred to the merchant marine and renamed the *SS Modlin*. During the invasion of Normandy, the *Modlin* was one of the vessels sunk to form the breakwater for the artificial harbors.

The second group of Polish vessels consisted of three destroyers, the *Blyskawica*, *Grom*, and *Burza*. This group left Gdynia on 30 August and arrived at Rosyth, England, on 1 September 1939. This action had been agreed on with the British Admiralty in August before the War, because of the conviction of the Polish Chief of the Naval Command of the hopelessness of the situation if the destroyers remained in the insecure Polish base.

The fourth destroyer, the *Wicher*, remained in Poland. The real reason for this was that the proposed land-naval operation against Gdansk called for the participation of one destroyer.

When, in May 1939, Admiral Swirski called the attention of Marshal Smigly-Rydz to the necessity of sending three destroyers to Great Britain, the operation against Gdansk was completely planned, and it was impossible to request that the landing operation be abandoned. Marshal

Smigly-Rydz immediately agreed to send three destroyers to Great Britain, retaining the right of deciding the date of the departure.

Later, when Admiral Swirski pointed out the impracticability of using naval vessels against Gdansk without taking into account probable German naval action, Marshal Smigly-Rydz agreed that naval vessels were to be used against Gdansk only if the German fleet was not there.

The Chief of the Naval Command, however, did not take advantage of this weakening attitude toward participation of destroyers in the Gdansk operation to press the matter of dispatching the fourth destroyer to England. Swirski feared that certain influential military figures might oppose sending any of the destroyers to England if the matter were stirred up.

Polish submarines had been ordered to attack German shipping as long as they were able. Then they were either to force their way through to England, or, in case this could not be done, to be interned in Sweden. Of five Polish submarines, three were interned in Sweden and two, the *Wilk* (after 20 days of operation) and the *Orzel* (after 43 days), made their way to England. This increased the number of Polish vessels on the side of the Allies to seven. They were manned by 70 officers, 69 cadets, and 804 noncommissioned officers and men.

### British Naval Problem

The task which faced the British Navy at the outbreak of war may be briefly described as follows: Protection of Great Britain's own shipping, and the blockade of Germany. The disproportion of forces existing between the German fleet and the combined British and French fleets made the possibility that the German fleet would seek a classical naval battle remote. The

Allies could anticipate German submarine action, however, as well as occasional raids by the larger German vessels through the blockade to the open seas. With this sort of action in view, the Germans had constructed the so-called pocket battleships, possessing considerably greater fire power than that of cruisers and speeds which made pursuit by contemporary battleships impossible.

The blockade and the protection of merchant shipping required an enormous number of Allied escort vessels. This task during the early part of the War fell to destroyers, and the British Navy was short this type of vessel. Without exaggeration, the Polish destroyer division at that time was worth its weight in gold to Great Britain. At first, the Polish destroyers were assigned to the western theater of operations under the command of the commander in chief of the western approaches stationed at Plymouth. Later, they were transferred to the 1st Destroyer Flotilla at Harwich.

The Polish submarines were incorporated into the 2nd Submarine Flotilla at Rosyth. The Polish vessels became part of larger British units and, from the operational standpoint, were under British commanders. From every other point of view, however, they remained under Polish authority. These matters were regulated by a Polish-British agreement signed on 18 November 1939. Toward the end of 1939, a floating naval base was organized at Plymouth on board the *Gdynia*. It became the location of the training center for naval cadres and the command post of the Polish naval complement.

Early in 1940, the destroyers based at Harwich took part in patrol activities against German submarines and surface vessels attempting to break out of the blockade. Their operational area was Terschelling-Helgoland. The shore waters were at that time sown with magnetic mines against which there was, as yet, no

countermeans. Of the flotilla of 13 vessels, three units struck magnetic mines and sank. At the end of the War, only three destroyers—two of them Polish—remained of this flotilla.

Early in April, the destroyers were assigned to the British Home Fleet and took part in the ill-fated Norwegian expedition. On 4 May, at the mouth of Rombarks Fjord, almost directly off Narvik, the *Grom* was struck by aerial bombs and sunk. On 6 May, the *Blyskawica* was subjected to an unusually severe bombing attack by German planes. It partially avenged the loss of its sister ship by bringing down two German planes. The *Burza* operated in the vicinity of Skaaland and Harstad.

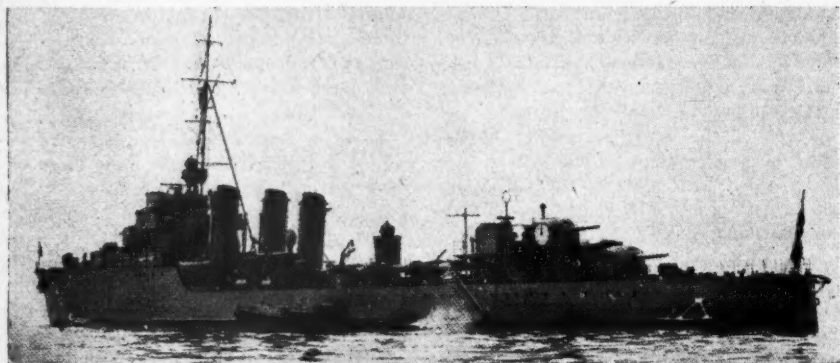
After Norway came the German attack on France. Polish destroyers also took part in the Dunkirk evacuation. The *Blyskawica* was at Dunkirk, literally within the port itself. The *Burza* was struck by two bombs at Calais.

At that time, in addition to the *Grom*, the submarine *Orzel* was lost. The *Orzel* had carried out seven patrols to the southern shores of Norway, and in the Skagerrak and Kattegat. On the fifth patrol on 8 April, the *Orzel* sank the transport, *Rio de Janeiro*, which was carrying German troops for the invasion of Norway. This was the first loss suffered by the Germans at this time. The *Orzel* never returned from its seventh patrol begun early in June. It was lost, together with the entire crew.

A second submarine, the *Wilk*, made eight patrols in 1940. The crew of this boat had to contend with old machinery. The boat was old, having been built in 1930 and having seen nearly 9 years of service. In addition, it had been damaged by bombing in the Baltic. In spite of all this, it destroyed a German submarine on one of its first patrols.

#### Increase in Strength

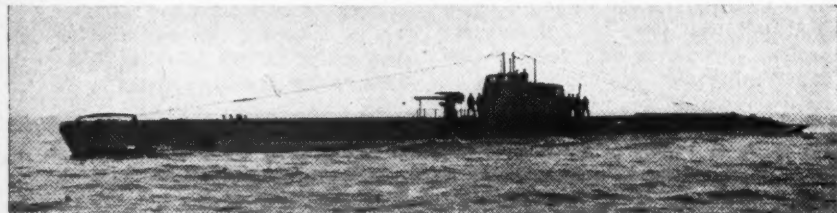
The year 1940 was not only a year of



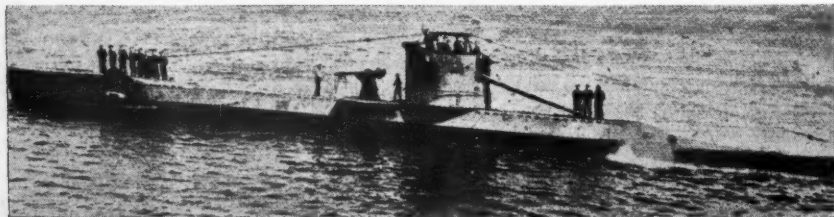
The Polish destroyer *Burza*, above, was used extensively in operations with the Allied fleet. It managed to escape from the Germans when Poland was occupied.

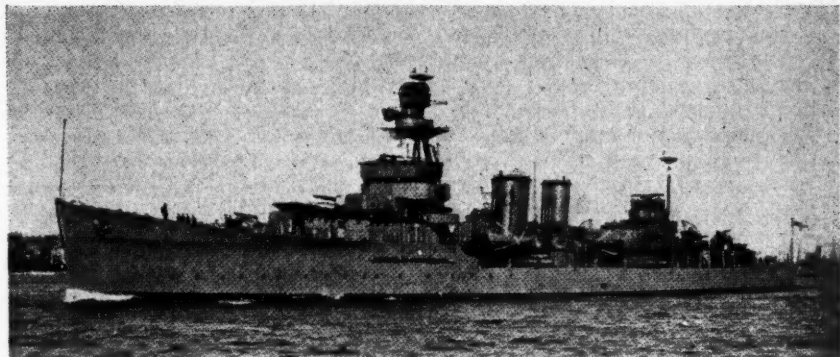


The *Orzel*, above, one of two Polish submarines which escaped to England early in the War, sank a heavily-loaded German transport carrying troops for the invasion of Norway.

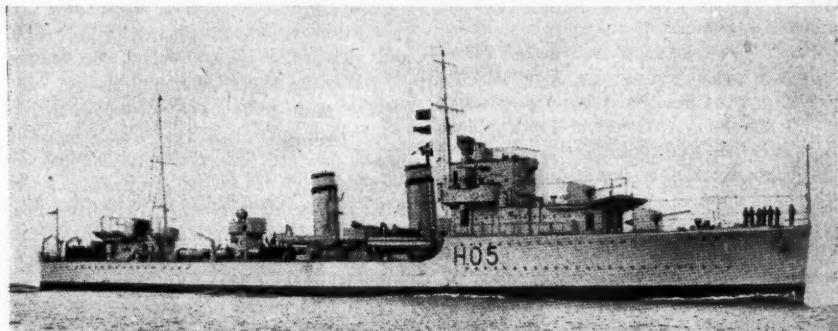


The submarine *Wilk*, above, was an old vessel which still performed valuable service before being disabled. The *Sokol*, below, joined the Polish fleet in 1941.

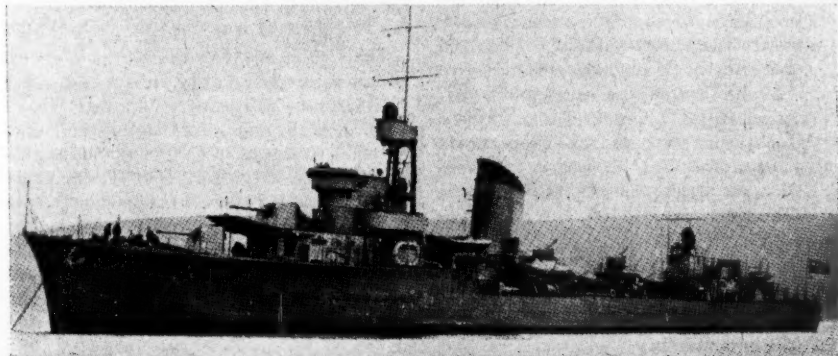




The *Dragon*, above, the first cruiser in Polish naval history, was added to the fleet in June 1943. This vessel saw extensive service during the Normandy invasion at which time it was damaged to the extent that it was scuttled to form part of the breakwater.



Above, the *Greyhound*, a sister ship of the destroyer *Garland* which was transferred to the Polish fleet by the British Admiralty in 1940. Below, the destroyer *Blyskawica*, a vessel built in Poland, which performed valuable service all through the War.



losses but also a year of naval growth. On 3 May, the Polish flag was raised over the destroyer *Garland*, which had been lent by the British Admiralty. This vessel operated for a time in the Mediterranean, but early in September it joined the *Blyskawica* and the *Burza* which, at that time, were again based at Plymouth. These boats formed a part of the 3d Destroyer Flotilla, whose commander was Lord Mountbatten. This flotilla maintained continuous patrols in the English Channel to prevent movements by the Germans in the vicinity of the French coast and to counteract any invasion threat. This was an extremely difficult period of activity for Polish vessels. The nights were spent in patrol duty and the days at Plymouth on a 10-minute alert basis. Periods at the base were marked by many bombing attacks. Shore leave was possible only once a month, because at that time, Great Britain was living in fear of invasion and every object that could float and could be armed assisted in the defense of the island.

In June 1940, the Polish Navy acquired 12 fishing boats which, at first, were equipped with radio and armed with only a hand carbine. Later, a Hotchkiss machine gun and a machine pistol were added to their armament. These craft performed sentry duty. This group was augmented by two patrol boats, called "*chasseurs*." These were French vessels of about 100 tons and were designed to combat submarines. In addition to these, two auxiliary ships, the *Pomerol* and the *Medoc*, were assigned to the Poles in July. These boats had a displacement of 1,200 tons and were armed with four 12-cm guns and two anti-aircraft guns. One of them, the *Medoc*, was torpedoed by an airplane and went down with its commander. The Polish Navy also acquired the French destroyer, *Ouran*, sister-ship of the *Burza*, and, in November, a new destroyer, the *Piorun*.

When the possibility of a German invasion of England diminished toward the end

of 1940, and the menace of submarine operating from Norwegian and French bases increased, the need for destroyers became more pressing. As a result, the Polish destroyers were sent to Greenock, a base at the mouth of the Clyde, and began to take part in the operations known as "The Battle of the Atlantic." These ships escorted convoys to America, going as far as the 20th to the 25th degree of west longitude. There they met convoys travelling eastward and accompanied them to ports on the west coast of Great Britain.

In May 1941, the *Piorun* took part in the pursuit of the German battleship *Bismarck*. It even exchanged a few salvos with it. In June, the *Garland* took part in the expedition to Spitsbergen. The purpose of this expedition was to destroy a German radio and meteorological station. In September of that year, the *Piorun* and the *Garland* escorted the famous convoy to Malta.

In April, the Polish Navy was reinforced by two new destroyers, the *Krakowiak* and the *Kujawiak*. These ships were especially fitted for escort service. They were armed with six 4-inch anti-aircraft guns, one Vickers 40-mm 4-barreled gun, the so-called pompom, and two *Oerlikon* guns, and were equipped with an assortment of radar instruments. They were perfect anti-aircraft vessels. The problem of providing crews for these destroyers was solved by the return of the destroyer, *Ouran*, to the Free French Navy.

The *Krakowiak* and the *Kujaw'ak* were assigned to convoy duty on the east coast of England. The ports on the east coast, London, Hull, and New Castle, were inaccessible to large ocean-going ships because of the great danger of German air attack. The problem of transporting to eastern England the goods unloaded in ports on the west coast, in view of the quantities to be carried and the damaged condition of the railroads, fell to coastal shipping. Convoys of coastal vessels were loaded in the ports of the Irish Sea, the



Clyde, and the English Channel, and they then carried cargoes to the ports of the south and the eastern coasts. These convoys were exposed by day to attacks by aviation, and at night to attacks by motor torpedo boats. Destroyers of the *Hunt* type were assigned to this task.

The *Krakowiak* and *Kujawiak* were especially fitted for this mission. They were assigned to the 15th Destroyer Flotilla, based at Plymouth, whose task was to escort convoys between Milford Haven and Portsmouth. The destroyers worked separately, each having four trawlers permanently assigned to it, thus forming an escort group. The service was monotonous and exhausting, since half of the crews was constantly on the alert due to constant air threat. Nights were frequently spent at battle stations. Worthy of special mention was the defense of a convoy by the *Kujawiak* which, by skillful maneuvering and firing, succeeded in preventing German planes from making a successful attack. Not one of the ships of the convoy was damaged. This action occurred around midnight, and deserves emphasis because of the fact that the maneuvering of the boat and the direction of its fire depended entirely on the ship's radar equipment.

The submarine *Wilk* carried out its last patrol in January 1941. It was considered unfit for operations because of the worn condition of its machinery, so was sent to join the group of training vessels.

On 19 January, the Polish flag was raised over a new submarine, the *Sokol*. At first, it took part in the blockade of Brest, where the German line cruisers *Scharnhorst* and *Gneisenau*, which constituted an enormous threat to the communication routes of the Atlantic, were stationed. In September, the *Sokol* succeeded in escaping from an anti-submarine net, and it also escaped after torpedoing an Italian destroyer in the harbor of Navarino. An especially trying period for the *Sokol* was

the stay at Malta where it was frequently forced to submerge in the port because of air attacks. The *Sokol* was struck twice by bombs during these attacks. Since repairs were impossible at Malta, the submarine went to Gibraltar and from there to England. During its first tour in the Mediterranean, the *Sokol* fired 20 torpedoes, obtaining five hits and sinking 11,000 tons of shipping and damaging 15,000 tons. At this time, 82 depth bombs were dropped on it.

On 4 December 1941, the Polish flag was raised over an American submarine, which was renamed the *Jastrazab*. In May 1942, due to a mistake and other unfortunate circumstances, the *Jastrazab* was sunk by the escort of an Allied convoy which was on the way to Russia. A new submarine, the *Dzik*, replaced the *Jastrazab*.

In 1942, Polish destroyers escorted convoys to Canada, Russia, and Iceland as well as in the English Channel. They also took part in operations in the Mediterranean where, on 16 June, the *Kujawiak* was lost after striking a mine while escorting a convoy to Malta. A new destroyer of the *Hunt* type, the *Slazak*, took the place of the *Kujawiak*, and a new large destroyer, the *Orkan*, was added to the Polish Fleet.

The part played by the *Garland* in a convoy to Murmansk merits mention. This convoy was subjected to a massed air attack. The *Garland* was seriously damaged and suffered heavy losses in personnel.

In August, the *Slazak* took part in the Dieppe raid, bringing down four enemy planes and winning the "championship" of the British Fleet for 1942. About the end of that year, the *Slazak* won a record of another sort, picking up 21 British fliers in 2 weeks. One crew was rescued after being adrift 62 hours on a life raft.

On 8 November 1942, the North African invasion took place. The Polish flag was represented by the *Blyskawica*, which covered the landing at Bougie.

### The Decisive Year

In a certain sense, the year 1943 was a decisive year in naval operations in the European Theater. The British Fleet regained its supremacy in the Mediterranean, making possible the invasion of Italy, and the Battle of the Atlantic passed its peak.

The intensity of the Battle of the Atlantic varied from time to time. The number of German submarines operating in the Atlantic varied from only a few to several dozen units. Allied shipping losses ran from a few score vessels to nearly a million tons monthly. On the average, German submarines sank 225,000 tons monthly. Altogether, 2,775 merchant vessels, totalling 14½ million tons, were sunk. The Germans lost 781 submarines; the Italians 85. In 1942, 880 Allied ships took part in escort and patrol duty. In addition, 2,200 smaller vessels were used for coastal shipping. Altogether, 75,000 merchant ships crossed the Atlantic in convoys.

The Polish vessels, *Garland* and *Burza*, carried out difficult tasks in the Atlantic convoys. They formed a part of an escort group composed of British, French, and Polish vessels. These vessels performed an especially monotonous and dangerous task. Especially worthy of mention was the *Burza*, which was barely able to carry enough fuel oil in its tanks for its trip from Europe to America. Economy of steam was practiced to the limit of human endurance. Steam to the radiators was even turned off in winter in the North Atlantic. As a reward, both of these boats were sent to warmer waters in October 1943, where they took part in taking the port on Terceira Island in the Azores. Toward the end of the year, the *Garland* was sent to Freetown, South Africa, and operated from that base until April 1944, crossing the equator for the first time on 11 July 1944.

In June 1943, the *Slazak* and the *Krakowiak* were sent to the Mediterranean and took part in the invasion of Sicily. In

November, the *Krakowiak* participated in the invasion of the Dodecanese Islands.

In 1943, as already mentioned, the *Orkan* was lost, but the Navy was increased by the addition of the first cruiser in its history, the *Dragon*. This ship did not participate in operations in 1943, since it was undergoing major overhauling. The submarine *Dzik* was sent to the Mediterranean in March 1943, and in April it was joined by the *Sokol*. These vessels arrived at Malta at the time when the North African campaign was ending. Axis shipping had disappeared from the open sea. The Polish submarines were used to sink coastal shipping, to guard ports and coasts, to maintain the blockade, and to carry out special missions such as putting secret agents ashore. In the Adriatic, and afterwards in the Aegean, they sank or seriously damaged 75,000 tons of shipping. These submarines were each of 500 tons displacement and their crews consisted of 5 officers and 32 noncommissioned officers and men.

In April 1944, the *Garland* was sent from Freetown to the Mediterranean and operated there until the end of the year in cooperation with the British Fleet or in convoy service. During one operation, the *Garland* sank a German submarine which almost rammed her. The bow of the German craft scraped along the gunwale of the *Garland*, ripping open the steel plates of her hull above the water line for 10 yards. The *Garland* picked up 47 prisoners from the sinking vessel, including the commander.

The remainder of the Polish surface vessels was based in Great Britain and took part in operations in the Atlantic and in the Channel. Among the more interesting operations is the part played by the *Piorun* in the operation against the German battleship *Tirpitz* as well as the operations of the *Piorun* and the *Blyskawica* against enemy shipping in the Norwegian fjords.

### Normandy Invasion

In addition, ships were being made ready for participation in the invasion of Normandy, in which all the Polish surface vessels, with the exception of the *Garland* and the *Burza* took part. The cruiser *Dragon* and the destroyers *Slazak* and *Krakowiak* were on the east wing of the operation in the British sector. The *Blyskawica* and *Piorun* operated with the 10th Destroyer Flotilla in covering the invasion operation from the west against possible intervention by German destroyers based in Brest or the Bay of Biscay. A German division of four destroyers was destroyed by the 10th Flotilla on 8 to 9 June. On 13 June, the *Piorun*, accompanied by the British destroyer *Ashanti*, sank seven heavy German trawlers. The *Piorun* received a few hits but suffered no losses. The *Dragon* took part in the direct bombardment of coastal fortifications and fired on a concentration of tanks. At 0440 on 8 July, the *Dragon* was struck by a torpedo and badly damaged. Because of the stormy weather, the vessel could not be towed to England, so it was sunk in shallow water as a prolongation of the breakwater for an artificial harbor.

The *Krakowiak* and the *Slazak* also took part in the coastal bombardment. On 6 July, the *Slazak* captured the crew of a human torpedo, a 19-year old youth who sank his torpedo before surrendering. In September, the *Krakowiak* and the *Slazak* went to Harwich, from which place they served on patrol duty, and in convoys to Ostende and Antwerp, the two most important Allied ports of supply, until the end of the War. This service was extremely exhausting. The fall and winter of 1944-1945 were very hard. The waters were filled with mines and wrecks, and with patrol boats and small submarines at

night. As an example of the intensity of this work, the *Slazak* was on patrol duty 29 nights in 3 months, and also took part in convoy missions. The *Blyskawica* and the *Piorun* escorted large, fast passenger ships transporting troops from America.

### Summary

The following figures give a summary of the work done by Polish ships: number of patrols and operations, 1,162; convoys, 787; attacks on surface vessels, 73; attacks on submarines, 211; opening fire on aircraft, 261 times; battles with shore installations, 100; number of nautical miles covered, 1,213,000. The highest honor was won by the *Piorun*, which travelled 218,000 miles; close behind it came the *Garland*, with 217,000 miles. To illustrate the number of nautical miles covered during the War, Polish ships travelled the equivalent of 56 times around the earth at its equator.

Axis ships destroyed or damaged were as follows: Surface vessels destroyed, 6; damaged, 9. Submarines destroyed, 2; probably destroyed, 3; damaged, 8. Merchant vessels sunk, 41, or a total of 70,000 tons; damaged, 25,000 tons. Planes shot down, 17; probably brought down, 7. Shore batteries destroyed, 9; damaged, 8. Tanks destroyed, 3.

Polish losses were as follows:

Destroyer <i>Grom</i> .....	4 May 1940, Narvik.
Submarine <i>Orzel</i> .....	8 June 1940, Skagerak.
Submarine <i>Jastrazab</i> ....	2 May 1942, Arctic Ocean.
Destroyer <i>Kujawiak</i> ....	16 June 1942, near Malta.
Destroyer <i>Orkan</i> .....	8 October 1943, North Atlantic.
Cruiser <i>Dragon</i> .....	badly damaged and sunk in shallow water, 8 July 1944, Normandy Beach.

Polish personnel losses were as follows: 23 officers, 8 cadets, 4 ensigns, and 133 noncommissioned officers and 236 enlisted men, for a total of 404.

## Radio Propaganda

Translated and digested by the MILITARY REVIEW from an article by Captain B. Kamph in "Ny Militär Tidskrift" (Sweden) No. 7-8, 1949.

DURING World War II, propaganda underwent unprecedented expansion. All scientific measures were used, and radio provided new and formerly undreamed-of possibilities, unhampered by frontiers or censors. The belligerents did not confine themselves to fighting one another. Much effort and time was spent on broadcasts to neutral states, and Sweden was no exception.

### Broadcasts to Sweden

The German radio operated entirely in the interests of the German government and was directly under the control of the Ministry of Propaganda. Broadcasts in Swedish were started in Germany on 23 November 1939 and were continued from Norway after the Russians advanced to the vicinity of the German radio station. The German radio had a staff of Swedish collaborators, and several Swedes participated in the broadcasts. The central station for the Swedish broadcasts was at Königsberg. In addition, short-wave broadcasts were sent from Weichsel, station DXM at Katowitz, and other places. At first, there were two news broadcasts per day. Later, this effort was expanded into programs covering the entire evening and included music, short talks, and dialogues. Matters of purely national concern to Sweden were also dealt with.

During the entire period of the War, a number of stations of the British Broadcasting Company broadcast programs in Swedish. American and Canadian stations also made such broadcasts. The Russians used stations in Moscow and various other places. The Russian broadcasters worked with great energy. The best known of them usually went under fictitious names.

The foreign broadcasts were advertised to the Swedes partly by radio and partly by expensive advertising in Swedish pub-

lications. The weekly Swedish publications refused to accept advertisements of this sort, but about 70 of the daily publications accepted them at first. In the fall of 1941, however, a reaction set in and from then on only a few publications accepted such advertisements.

### How Many Listened?

According to research conducted after the War, it is estimated that in 1944 8 percent of the Germans listened to foreign news broadcasts, in spite of a threatened death penalty. By 1945, this had increased to 9 percent.

In Sweden, there are more than 30 radio stations, and the number of radio listeners exceeds 2 million. There is a radio in practically every home. It would certainly never occur to any Swedish authority to forbid Swedish radio listeners to tune in foreign broadcasts. It might be of interest to note a portion of the results of a poll made when foreign radio propaganda was at its height in 1942. It was shown at that time that 12.8 percent of the Swedes regularly listened to one of the broadcasts in Swedish by the belligerent nations. The listeners were divided as follows:

English news broadcasts in Swedish, 9.9 percent.

German news broadcasts in Swedish, 2.7 percent.

Russian news broadcasts in Swedish, 0.2 percent.

As an indication of the listeners' interest, a few examples with regard to the so-called listeners letters may be given. The Stockholm radio service receives about 7,500 of these each year, mainly complaints of various sorts. The Swedish broadcasting station in Canada states that it receives

from 3,000 to 4,000 yearly. During the years that broadcasts were in progress from German stations, some 30,000 such letters were sent to the Swedish stations, roughly an average of 6,000 yearly. Many of these were letters of complaint. A few of them were retained by the Swedish censor. When this fact was discovered and reported over the German radio, the flow of letters immediately increased and the writers expressed their displeasure of the strict Swedish measures.

### Radio Propaganda Continues

After the War, German radio propaganda in the Swedish language ceased, but an intensified flow of radio propaganda from other sources began in its stead. In all, 10 different countries broadcast to Sweden in the Swedish language at the present time. A large number of Swedish newspapers are again carrying advertise-

ments about the foreign radio broadcasts. Through various Swedish organizations in other countries, listeners are urged to make known their wants, together with their names and addresses. At times, even radio contests with prizes, which attract a great deal of interest, are held. On the whole, these foreign stations manifest a great deal of interest in their listeners and use many means for winning new sympathizers and establishing new contacts.

Jamming has interfered with the 7 PM short-wave broadcasts to Sweden. These disturbances are probably intended for an American station which broadcasts news in Russian at the same hour. There is only a small difference in frequency and wave length between the Swedish and the American station.

Sweden should maintain a vigilant watch over foreign broadcasts and be ready to defend itself against this form of attack.

## The Allocation of Priorities

Digested by the MILITARY REVIEW from an article by Air Vice Marshal W. M. Yool in the "Journal of the Royal United Service Institution" (Great Britain) August 1949.

ONE aspect of modern war to which insufficient attention has been paid is in regard to the difficulties which arose over the allocation of priorities. Although some writers realize that such difficulties existed, few allow them to influence their arguments. It appears doubtful whether there are many officers, even among the senior ones, who are fully aware of the important place which the allocation of priorities took in the higher direction of World War II.

Many writers assume that all that was necessary to ensure the success of the particular course of action they recommend was to have built more warships, bombers, or whatever particular weapon they favor. They ignore both the fact that such additional equipment could only have been provided at the expense of something

else, and the possible consequences that might have followed if such a reduction had been made.

### Past Experience

It became evident early in the War that resources of manpower and materials were far short of requirements. Once France fell, the correct allocation of limited resources became of vital importance, and from then on an elaborate system for their control and disposal was built up. The major decisions were made by the War Cabinet, advised as necessary by the Chiefs of Staff. Each government department had its own system for allocating priorities within the general policy laid down by the War Cabinet.

It is proposed in this article primarily



to consider how the system worked as affecting the Services. In a war where the whole of our national resources were involved on an unprecedented scale, every aspect of our economy was affected, and the absolute minimum of our resources was devoted to the civil needs of the country. Everything else was devoted to the war effort, and the Cabinet was therefore continually having to make decisions on what additional controls could be applied to the civil community. Similarly, the Chiefs of Staff were continually having to advise the Minister of Defense and the War Cabinet on two main questions: should we reinforce this theater or that, and by what proportion of our forces; and how should we allocate our industrial resources between one type of equipment and another?

The first type of question was, on the whole, easier to answer, as the decision had to be based on the forces actually available. The pressure of events often rendered a particular course of action inevitable. If a mistake were made, it was unlikely to be disastrous in the long run.

In the early stages of the War, the two most important decisions that had to be made were, probably, the decision in June 1940 not to reinforce the French front, particularly with fighter aircraft, and the decision in the spring of 1941 to transfer part of our limited forces from North Africa to the support of Greece. The latter decision has since been much criticized, but whether it was right or wrong, it did not affect the outcome of the War. The decision not to send further fighter aircraft to France, however, probably did. If we had dissipated our fighter resources at that time, it seems clear in retrospect that we should in all probability have lost the Battle of Britain.

Another difficult decision of this type was in relation to the opening of the second front. Here we had to take into account not only our own views but those

of our American Allies, with the added complication of unceasing pressure from the Russians and amateur strategists on the home front. But, even if the second front had been opened too soon and had been a failure, it is doubtful whether this would have affected the ultimate result, although it would probably have prolonged the War.

The second type of question was much more difficult to answer. Not only did such questions involve forecasting the course the War was likely to take, but the consequences were much more far-reaching, because of the time it takes to switch industrial capacity from the production of one kind of equipment to another. Any major alteration in the scale of construction of bombers or tanks, for instance, will not become effective for 2 or 3 years at least.

### Industrial Resources

Obviously, no one could forecast accurately the course of the war, and this meant inevitably that the allocation of industrial resources as between one type of equipment and another, and of manpower, had to be a compromise. We could not take the risk of relying too much on any one form of production. After the fall of France, for example, the voices of those who thought the War could be won by bombing alone became louder and more insistent. Indeed, at that time, the prospects of an invasion of the Continent seemed remote. It will be recalled how the Prime Minister in one of his speeches at the time, in response to the popular clamor for more bombers, said that even if the protagonists of bombing were proved wrong, at least there was no harm in trying.

The fact that there was no harm in trying did not mean that we could risk relying solely on the bomber offensive to win the War. Even in 1940 and 1941, we

were devoting a far greater proportion of our industrial effort to building up the Army, together with the necessary assault craft for the future invasion of the Continent, than to the bomber force. Who can say that the decision was wrong? If we had relied entirely on the bomber offensive, and thus been unable to invade Europe in June 1944, we would have had a hard time defending ourselves from the flying bomb and rocket attacks. Although these attacks were substantially reduced by air bombardment, the only certain means of preventing them was to capture the launching sites, which could only be achieved by the invasion of Europe. An additional reason for no longer delaying the launching of the second front had arisen from the possibility that the Germans might be well on the way to perfecting the atom bomb. We hoped that they were well behind us in the development of this new weapon, but at the time we were by no means certain. This meant that it was essential to bring the War to an early end, and this could only be done by invading Germany.

On the other hand, in 1940 or 1941, we might have decided to pin our faith on ultimately winning the War by the invasion of the Continent, and we therefore might have concentrated our industrial resources on the development of the Army to the exclusion of the bomber force. It seems clear in retrospect that without the development of the bomber offensive and the consequent dislocation of German industry and communications, the invasion of the Continent would not have been possible.

We also had to decide what proportion of our effort was to be devoted to making sure that we should not lose the War. This included decisions on such matters as the priority to be allocated to naval vessels for the protection of sea routes, to merchant shipbuilding, to fighter aircraft and antiaircraft guns for the de-

fense of the United Kingdom, and to civil defense.

### The Future

It is doubtful whether in any war there has ever been enough men and material to go round. The scale and complexity of total war will make it even more important in the future than in the past to ensure that our limited resources are used to the best advantage. We cannot afford entirely to neglect any particular arm at the expense of another. The difficulty is to decide what proportion of our limited resources is to be allocated to each arm, in order to produce a balanced force capable of dealing with any situation that may arise.

Decisions on priorities, affecting as they do almost every aspect of the life of the nation, must therefore inevitably be a compromise between conflicting views and requirements. Seldom, if ever, is the allocation of an over-riding priority to any particular requirement likely to be justified. The only occasion during the late War on which an overriding priority was allocated was that given to Lord Beaverbrook for the production of fighter aircraft during the Battle of Britain. There seems little doubt in retrospect that this was fully justified, but the special powers given to him were only for a limited period. There were widespread repercussions, with resultant delays, on the production not only of other types of aircraft but also on other forms of war production.

It is not suggested that the general conduct of war should be a compromise. Obviously, in the day-to-day conduct of war, clear-cut decisions must be made. It is only desired to make the point that in allocating the priorities which will affect the future size and shape of our forces it is essential to compromise for the good reason that no one can accurately forecast the course of a war. If too much emphasis is placed on the production of one type of equipment, we may well find 2 or 3 years

later that our forces are lacking in some vital item. A good example of this is the almost total neglect by the Germans in the last War of the production of heavy bomber aircraft, which forced them increasingly onto the defensive in the air as the War progressed.

Neither is it suggested that what is required is a compromise such as "everything that he wants and nothing that you want." It should be realized, however, that much of the difficulty in resolving

questions relating to priorities lies in assessing the correct proportion of effort to be allocated to each Service or item of equipment. If, therefore, any officer who has to assist in making such decisions keeps firmly fixed in his mind the fact that, as our resources are never likely to be sufficient for all three Services, any increase in the requirements of his own Service can only be met by a corresponding reduction in other requirements. He should develop a reasonable and balanced outlook.

## The German Secret Service in World War II

Translated and digested by the MILITARY REVIEW from an article in "Allgemeine Schweizerische Militarzeitschrift" (Switzerland) July 1949.

IN THE German High Army Command (OKH), there was a "Security" group which was housed in the large "service building" on the Tirpitzufer in Berlin. Another name used for this group, "Defense," was misleading, for it generally fulfilled offensive missions. Ever since its establishment, the leader of this group had been Admiral Canaris, creator of the modern German intelligence service. There were three sections in the group under Canaris.

The First Section was assigned the mission of obtaining material from foreign countries concerning armies, navies, air forces, armament, finance, food supplies and transportation, morale, and policies. In short, this section collected all sorts of data of importance in conducting war. Under this category came everything from explosives to the uniforms of Polish railway employees and Dutch letter carriers.

The First Section used a well-trained unit, the so-called KO (*Kriegsorganisation*—War Organization), for acquiring its basic material. The foreign press was carefully scrutinized by the KO, and foreign radio broadcasts were monitored. Many valuable details were gleaned from

German business connections in the other countries. The Army also supplied valuable data through its intelligence officers. In the First Section, in addition to specially trained officers, there were merchants, bankers, diplomats, lawyers, and technicians who were personally acquainted with various foreign countries. A large part of the activity of this Section was based on entirely legal means. It was, therefore, a hard blow to the Germans when the Americans banned the exportation of all periodicals from the United States. Hence, during the rest of the War, there was a regular black market in Lisbon for American periodicals.

The First Section also provided agents for special cases such as those used before the planned invasion of England in the late summer of 1940. Special agents were appointed to every German unit with the mission of obtaining first-hand information when in England. Many details had already filtered in through German radio monitoring. For example, the names of the commanders of all the English Home Guard units had been learned by radio monitoring alone.

Agents were employed only in case of

necessity. They operated from Turkey against Russia, and from Spain, Portugal, and Ireland, against England. By painstakingly piecing together many small details, a picture of the enemy's frontier defense had been gained. Up to the time of the campaign in Russia, the First Section had functioned with extraordinary precision. Many times, the German Army was able to verify this during the campaign in France and Central Europe.

### The First Failure

The intelligence section met with its first failure in its efforts against Russia. The German Army Ordnance Office could not believe it possible when German troops reported the appearance of Russian tanks, including the T-34s, whose armor could not be penetrated by German guns.

The First Section presented its reports to the Deputy Chief of the General Staff IV, a section of the Army General Staff. There the reports were evaluated by countries to provide intelligence for command decisions. The last person to evaluate the Russian data was General Gehlen, who was director of the Foreign Armies Section. In March 1945, Gehlen was removed from this position by Hitler, who had no use for this work since attention was always being called to the great strength of Soviet Russia.

The First Section of the "Security" group was generally limited to research. Evaluation was outside its province. It is obvious, however, that, from the great wealth of material that came to Berlin by mail daily, the data collectors of the First Section and General Oster and Admiral Canaris were able to obtain an excellent over-all view of the war situation. As a result, it was possible for them to provide certain German authorities who were being misinformed by Hitler with a true picture of the situation.

The Second Section of the "Security" group was also created in 1938, and it

was first tested in 1939 at the beginning of the War. Until 1943, this section was under the leadership of General Erwin Lahousen of Vienna. Like the First Section, the mission of the Second Section was offensive in character. One of its most important activities was to bring about the "disintegration of the enemy's army." This was not to be accomplished, however, in such a way that the German effort would be apparent. In Belgium, for example, the Flemish movement was utilized. In France, the Second Section took advantage of the communist movement, making use of the long-range repercussions of the Hitler-Stalin agreement of August 1939. In Yugoslavia, the Nationalist trend was fanned into flame by German agents and soon brought about the dissolution of the Yugoslav Army.

The Second Section, with the help of agents using force and trickery, was charged with upsetting the enemy's planning. One mission, for instance, was the fighting of the *V-Leuten* (German collaborationists) on the side of the Poles. At a given time, they were to desert, thus throwing confusion into the ranks of the enemy, or they were to prevent the destruction of bridges by timely seizure.

### The "Brandenburg" Regiment

After the campaign in Poland, this type of warfare carried on by agents was entirely revamped, since it was shown that a thorough military education was essential for the success of such special missions. Several companies, therefore, were combined to form the "Brandenburg" Regiment, which was subsequently expanded to form a division. First, the members of this special formation received thorough military training. These troops were able to fulfill normal combat missions. In addition, they were schooled in all manner of secret undertakings, were trained in foreign languages, and were thoroughly oriented on the methods of the enemy. In

this way, a great many successful *coups de main* were executed.

The sudden penetration of German armored forces into the Belgian fortifications was made possible by the seizure, intact, of an important bridge in the vicinity of the frontier. A 50-man group was selected from the "Brandenburg" Regiment for this purpose. In the early hours of 10 May 1940, these soldiers, in German uniforms but with their weapons concealed, crossed the frontier escorted by "Belgian" soldiers. These "Belgian" soldiers were Germans dressed in Belgian uniforms. The group of "prisoners" was sighted several times by Belgian frontier guards, but it was permitted to pass on. Arriving at the bridge, the guard stationed there was overpowered before the outbreak of hostilities and the bridge was de-mined and held until the arrival of the German force later in the morning.

A similar situation occurred on 22 June 1941, prior to the attack on Russia. Possession of the Bug River bridge between Terespol and Brest-Litowsk was absolutely essential to the German Central Armored Group. Members of the "Brandenburg" Regiment had to seize the bridge before H-hour (0315).

This mission was accomplished by maintaining railway movements across the frontier up to the moment of the German attack. The last Russian grain train arrived in Terespol about midnight. The German train bound in the other direction was declared to be loaded with machine parts. Instead, it concealed a strong detachment from the "Brandenburg" Regiment. The German train was permitted by the Russians to cross the bridge. Scarcely had the locomotive reached the opposite side when the Germans sprang out and seized possession of the bridge.

This operation caused the German General Staff a great deal of worry, since the planned surprise fire opening the German attack and the seizure of the

bridge could not be timed exactly. The "Security" group insisted on executing the mission as early as possible, while the General Staff, for reasons of security and from fear of immediate Russian counteraction, did not favor an early execution of the mission. The seizure of the bridge, however, was a complete surprise and was successful.

The Second Section of the "Security" group achieved another great success in the seizure of the Dwina bridge in the summer of 1941. A small column of captured Russian trucks was made ready for this task. Germans in Russian uniforms, posing as wounded, were loaded into these trucks. As the retreating Russians approached the Dwina bridge, the early demolition of the bridge was to be expected. The German detachment passed through a gap in the front and joined the Russian column. When the detachment reached the Dwina bridge, the explosive charges were removed by the Germans who defended it until the German advanced elements arrived.

Later in the War, the "Brandenburg" Division often provided men for special operations. Ambitious plans were conceived against important production centers in the Near East. The last major operation of the Division was carried out during the Ardennes offensive. At that time, however, the command of the "Security" group was in the hands of the SS (*Schutzstaffeln*).

After the German capitulation at Stalin-grad, the Soviets used a similar intelligence organization, the so-called "Seydlitz Forces," on the Eastern Front. The German High Command remained silent on this matter and thereby caused the front-line troops greater difficulties than would otherwise have been the case.

### Protecting Germany

The Third Section of the "Security" group took over the problem of counter-



intelligence. The uncovering of enemy spy activities within Germany and the crippling of enemy communication networks outside of Germany were part of the Third Section functions.

In its defense activities, the Third Section leaned on the "Security Sections" of the military areas. These, in turn, maintained their own "security agents" in the armament industry. The highly developed German intelligence system saw to it that every German agent operating outside of Germany was not only shielded, but that he also was kept under surveillance. The number of personnel in this section increased continually during the war, and a close connection developed only too soon between its activities and the Chief Office of National Security of the SS.

In 1944, the entire "Security" group with all three of its sections went over to the Military Office of the SS. This resulted in changes in personnel. Canaris was removed. Even before this, the chief of the Second Section, General Lahousen, had been forced to assume command of troops at the front.

Lahousen had endeavored to gather together the most important documents of his period of office for later use. Since this was a serious offense in the light of the existing security regulations, Lahousen turned the collection over to a Viennese friend, the chief of the "Security" Section of the 17th Military Area, who was later put to death. But Lahousen's collection of documents came into

the hands of a Viennese lawyer. In spite of the fact that this treasure lay buried in rubble at the end of the war, it was recovered by the Americans. The collection of documents is of considerable importance since pages of the diary of Admiral Canaris are also in it. These pages are probably all that is left of the Canaris diary.

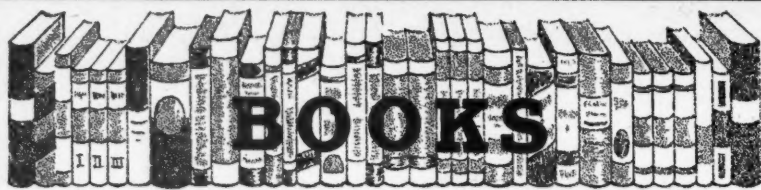
The German Intelligence Service, which was part of the Military Section of the Chief Office of National Security from 1944 on, acquired new tasks with the employment of long-range rockets. In World War I, "Big Bertha's" hits in Paris were reported to the firing position at Laon within an hour. Similarly, a reporting center was established in London in 1944. The Germans used a Hungarian couple there who forwarded the reports by means of a radio transmitter salvaged from an American bomber which had been shot down.

While the German "Security" group, the Secret Service Organization that had been established in the OKH, was useful in planning for the entire Army, the troops were unable to obtain information from this source for immediate front-line use. Collectors of information functioned mainly in the higher staffs. They interrogated prisoners, surveyed captured orders, and handled the interception of radio messages. If the information gathered by the Army Intelligence Service was of sufficient importance, it was transmitted to Section IV and a unified intelligence estimate was thus insured.

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Irregular war or guerrilla warfare are the activities undertaken by relatively small armed forces, with or without a military organization, in combination with regular or independent operations. This might be done by private citizens or units, to thus prolong the resistance of the Army when it has been destroyed or to supplement or extend the battle, helping in the battle to maintain the sovereignty of the nation as an independent state.

Captain Bruno Galindo Trejo in "Revista del Ejército", Mexico



## BOOKS

### FOR THE MILITARY READER

**LINCOLN FINDS A GENERAL.** A Military Study of the Civil War. By Kenneth P. Williams. Two volumes. 902 Pages. The Macmillan Company, New York. \$12.50.

Effective generalship was undoubtedly the major problem faced by the North in the Civil War, and President Lincoln's search for the leader who would bring victory is the main theme of this excellent study by Mr. Williams.

These first two volumes of a projected four-volume history cover the period from Fort Sumter to the early part of 1864. General Grant, the ultimate answer to Lincoln's quest, appears only incidentally in the first two volumes. Judging only from these, Mr. Williams has written what is perhaps the best and most authentic record so far published of the top-level direction of the War on the Northern side.

Williams' study will correct many misconceptions about the Union leaders which have developed over the years. Among these will be the one that Lincoln "interfered" in military operations. Both Lincoln and his conscientious Secretary of War, Stanton, took little direct action in the conduct of operations until Scott retired as General in Chief. Scott, himself, comes off in this study as a sound military leader, though his age limited his effectiveness.

With Scott's retirement, it is shown that Lincoln had no choice but to take direct control. The only alternative at the time would have been to make McClellan, then commander of the Army of the Potomac, the General in Chief. The fact that Lincoln did not, demonstrates his

sound military judgment, rather than the lack of it, according to Williams' evidence. Later, when Halleck became General in Chief, Lincoln again left the direction of the War to the professionals, showing only that concern for operations and command that is considered today as proper in the constitutional Commander in Chief.

Williams' case against McClellan's qualifications for high command is probably the most devastating ever written about an American commander. The documentation of McClellan's inaction, indecision, insubordination, and vacillation, while enjoying both numerical and logistical superiority over Lee, is complete. It should forever lay the charges that victories were denied McClellan by higher interference and lack of support.

The military qualities of McDowell, McClellan's predecessor, are pictured here more favorably than by some historians. It is also asserted that the first Battle of Bull Run was not the utter debacle that it has so often been claimed.

In Williams' estimate, Pope showed many qualities of a sound field commander and was on the verge of victory until undermined by McClellan. The popular Burnside fared little better than the others, being seized with indecision at critical moments and eventually opposed by many of his subordinate commanders. Hooker, one of those whom Burnside would have relieved, was his successor and a good administrator. But Hooker was a provocative man, unproved for high command, and

he lacked the confidence of both Lincoln and Stanton.

Not sure of his own ability to handle high command, Meade was put to the test at Gettysburg. Here he failed utterly to grasp his advantage of position and numbers, to appreciate the precarious position of Lee, or to see that a swift counterattack and pursuit might have shattered the Southern Army.

Williams takes the measure of the Northern leaders on the background of their respective campaigns. His accounts of operations are clear and discerning, and his critiques indicate a broad grasp of the art and science of warfare. Good examples, from many in these two volumes, are the pursuit of Jackson in the Shenandoah by Fremont and Shields, the second Battle of Bull Run, Burnside's river crossing at Fredericksburg and the withdrawal across the Rappahannock, and Gettysburg.

The logistics of the Civil War, a much neglected subject, receives considerable attention from Williams. Here was a subject that Stanton fully appreciated. The North poured its abundant resources and industrial products into the War, and Meigs, the able Quartermaster General, saw that they got to the troops in sufficient quantity and on time. There is frequent mention of the wanton waste of this wealth by the Union armies. Railroads were being used on a large scale in warfare for the first time, and their use for troop movements, evacuation, and supply was extensive. Haupt, the railroad expert, incidentally would have made any of the commanders an excellent G-2 or G-3.

Here also will be found revealing references to administration, the preparation of orders, and other staff work. An analysis of staff organization shows that the Northern staffs compared quite favorably with those of today and were better conceived and employed than were those that served Lee.

There are many examples of intelligence activity, too. Techniques were indeed primitive by present standards. But few commanders overestimated the opposition as did McClellan, and Lincoln and others were often more accurate in their estimates of strength and enemy capabilities than the field commanders.

Williams has done in this work for the Northern leaders what Douglas Southall Freeman has done for the Southern. Williams does not agree with Freeman on many counts, neither as to estimates of Union commanders nor as to Lee, Jackson, and others. Yet Williams has obviously benefited from Freeman's earlier work. What differences there are between the two are seldom fundamental; they are mainly matters of interpretation or evaluation.

Before Lincoln had ever seen Grant, he answered critics by saying, "I can't spare this man. He fights." Again, shortly after Grant took the top command, Lincoln again evaluated him, "Grant is the first General I have had." To this military leader, to the war in the west, and to the final campaigns in the east, Mr. Williams will devote the last two volumes of his history.

**THE STRUGGLE FOR DEMOCRACY IN GERMANY.** Edited by Gabriel A. Almond. 307 Pages. The University of North Carolina Press, Chapel Hill. \$4.50.

This study of postwar Germany sees a very real danger to the West in the shift that has taken place over the German question since the Potsdam accord. To reduce this danger, the authors advocate the elimination of the moral *cordon sanitaire* and the initiation of steps that will hasten the social integration of Germany with the West. The first part of the book deals with an account of the various liberal and democratic tendencies in German history, and part two discusses significant phases of the Allied occupation policy.

**LORD WAVELL. A Military Biography.** By Major General R. J. Collins. 452 Pages. Hodder and Stoughton, London. \$7.50.

General Collins has written a biography of Lord Wavell that not only contributes to a better understanding of the man but bears out the estimate of him as a "great soldier, outstanding administrator, and constructive statesman." This book ends with Wavell's relief as Commander in Chief in the Middle East and his assignment to India in 1941. The record is therefore incomplete, as must any biography be that concerns a living man. Nevertheless, the story of Wavell's efforts in the Middle East forms one of the vital chapters in the history of World War II. In 12 short months, Wavell fought nine campaigns, five of them simultaneously. In the first four—the Western Desert, British Somaliland, Italian East Africa, and Eritrea—he was victorious. The next three, Cyrenaica, Greece, and Crete, were defeats. The final two, Iraq and Syria, were successful. The record, considering the weak and ill-equipped forces at Wavell's disposal, is impressive regardless of how future historians may finally evaluate his over-all generalship.

**IN ANGER AND PITY. A Report on Russia.** By Robert Magidoff. 269 Pages. Doubleday & Company, Inc., New York. \$3.00.

Life in present-day Russia is described in considerable detail in this book by an experienced journalist with 12 years residence in the USSR. Magidoff is the American correspondent who was expelled from Russia in 1948 on charges of being a "spy" for the United States. Although the book is primarily an account of Magidoff's personal experiences, it gives a broad picture of Russian economy and political life.

**A HISTORY OF THE PACIFIC AREA IN MODERN TIMES.** By Osgood Hardy, Glenn S. Dumke. 752 Pages. Houghton Mifflin, Boston. \$5.00.

**ROOSEVELT AND THE RUSSIANS. The Yalta Conference.** By Edward R. Stettinius, Jr. 367 Pages. Doubleday & Company, Garden City, N. Y. \$4.00.

This book deals authoritatively with one of the most controversial international conferences of modern times. As US Secretary of State, the author was present at Yalta and thus speaks from firsthand experience, backed up by official records. Stettinius labels the conference as an honest effort by Britain and the United States to determine whether or not long-range cooperation with the Soviet Union could be attained. "The American people have encountered grave disappointments in our relations with the Soviet Union since 1945. These have resulted in widespread acceptance of the idea that at Yalta vital interests of the United States were sacrificed to appeasement of the Soviet Union. This idea is false. It is not Yalta that is the trouble with the world today, but subsequent failures to adhere to the policies Yalta stood for and to carry out agreements that were reached there."

**THE STRUGGLE FOR GUADALCANAL, August 1942—February 1943. History of United States Naval Operations in World War II, Vol. V.** By Samuel Eliot Morison. 375 Pages. Atlantic-Little, Brown, Boston. \$6.00.

**AMERICA IN GREECE. A Traditional Policy.** By David M. Robinson. 195 Pages. Anatolia Press, New York. \$3.50.

The major part of this book is devoted to documents concerning American support to Greece during the Greek War for Independence in the early part of the nineteenth century. In these records, the author notes "the moral sources of her (America's) great interest in Greece's struggle today against Communist domination." The final chapter gives President Truman's foreign policy speech concerning aid to Greece.